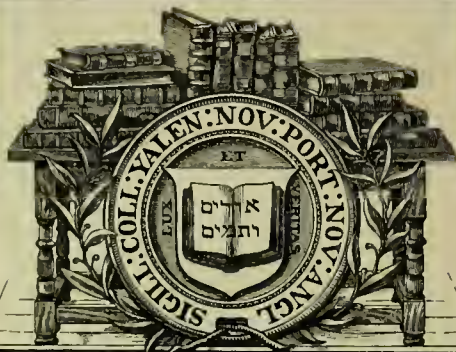


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THEORY AND PRACTICE
OF
ELECTRICAL
THERAPEUTICS,
OR
ELECTRICITY
AS A
CURATIVE AGENT,

BY
ALBERT J. STEELE, M. E.,

of St.

PROFESSOR OF ELECTRICAL THERAPEUTICS, FRANKLIN ELECTRI-
CAL INSTITUTE, BROOKLYN, N. Y.



NEW YORK:
AMERICAN NEWS COMPANY, AGENTS FOR THE PUBLISHERS,
No. 117 NASSAU STREET.

1871.

Entered according to Act of Congress, in the year 1871, by
ALBERT J. STEELE,
In the office of the Librarian of Congress, at Washington, D. C.

Printed by the
JOURNEYMEN PRINTERS' CO-OPERATIVE ASSOCIATION,
No. 30 Beckman Street, New York.

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TO THE
MEDICAL PROFESSION AND THE PUBLIC,

This work, which contains the results of eight years' patient investigation of the Science of Electrical Therapeutics, is most respectfully dedicated by

THE AUTHOR.



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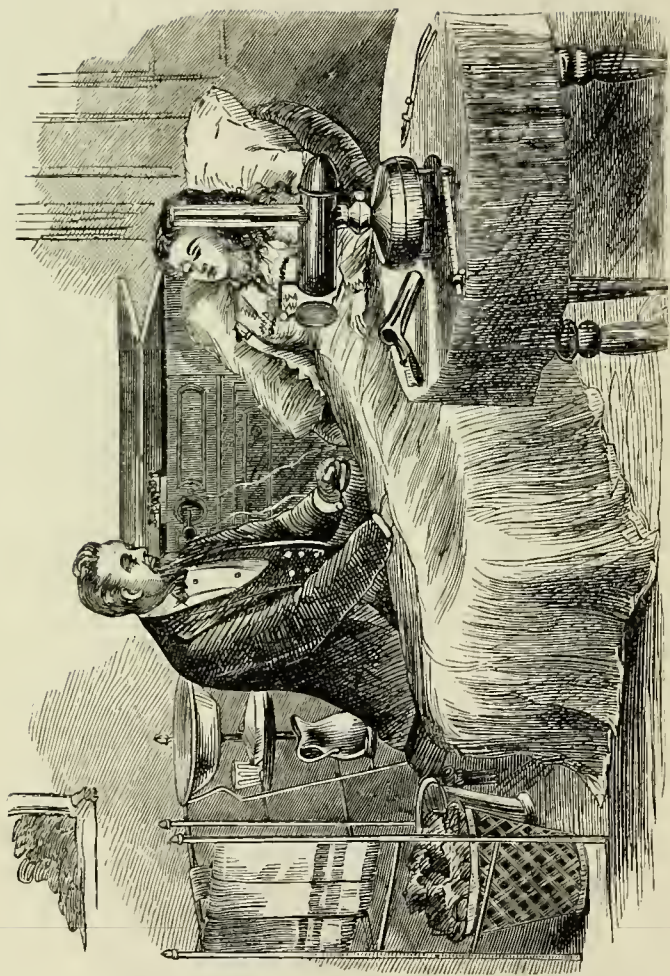
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PREFACE.



The object of this book is to contribute to the Profession and the Public the practical experience of over eight years in the use of Electricity as a curative agent, during which time over *fourteen thousand five hundred electrical treatments were given.*

My attention was first called to this subject from having become a nervous paralytic, and finding no remedy but this which afforded relief. I have ever since that time been thankful to God for my emancipation from that miserable condition, and being convinced that Electricity is destined to play an important part in the healing of disease, I have felt impelled to extend my investigations of the subject, in the hope that the human family might be benefited thereby. With this object in view, I have endeavored, in this work, to use the simplest language, in order that all may understand it. I have given a statement of about one hundred and seventy-five representative cases from my Diagnosis Book, classified under nearly fifty different diseases. The statement of each case is given in

the patient's own words. I feel that this will greatly enhance the value of the book to those who are unacquainted with the significance of medical terms, from the fact that if they find their feelings to accord with those of any case described, they can form a better estimate of the nature of their own troubles than would be possible for them to do were the descriptions laden with all the perplexities of medical phraseology. The manner of treating each case and the results produced thereby, are described as minutely as possible.

Some three years ago I visited Europe in search of some reliable electrical apparatus, as well as to make the acquaintance of those from whom I hoped to gain information on the subject. I returned with several kinds of instruments, which, though failing to meet my wants, yet served to pave the way for the ultimate perfection of an apparatus which has been in use for the past two years, and for which I have received letters patent. Most of the cases recorded in the work were treated with it during the time I was engaged in perfecting it. Since then the results produced by it have fully realized my most sanguine expectations.

A full description of the instrument will be found in the latter part of the book. Ladies will be specially interested in the description of the uterine electrode and abdominal supporter, with which I have had great success in treating uterine and genital affections.

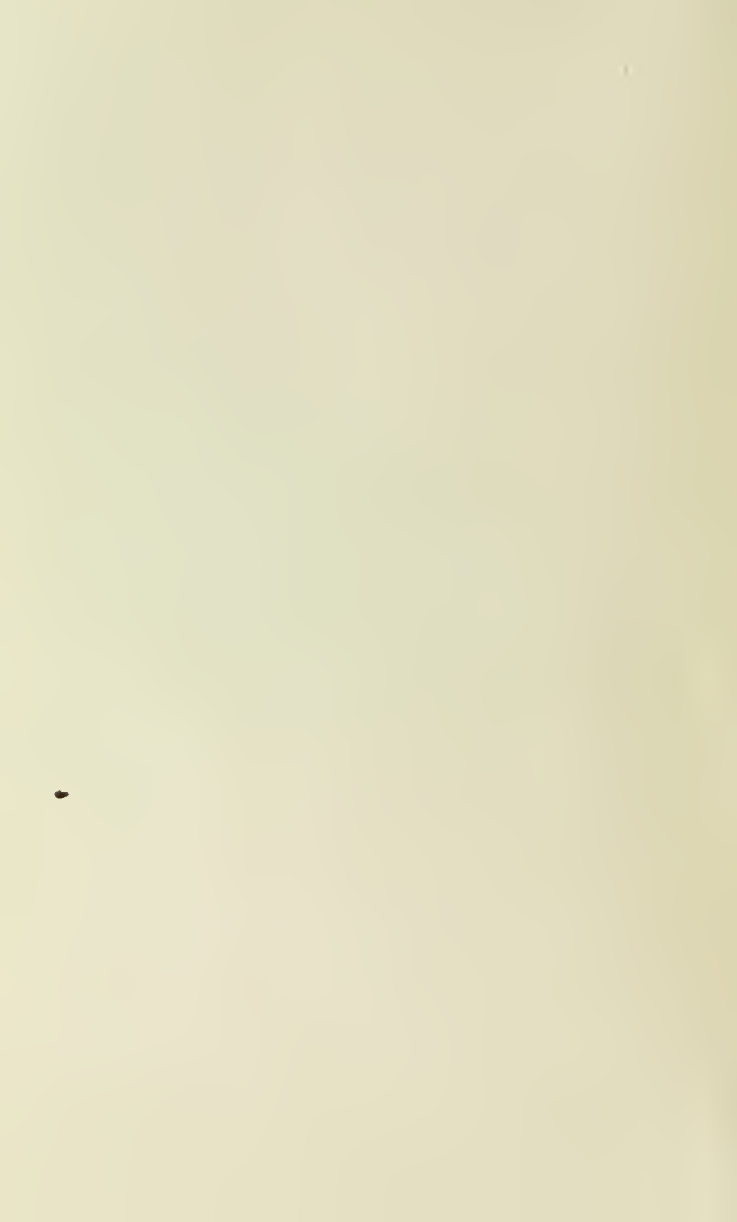
The use of metallic electrodes we long since discarded. Those which have been substituted will be minutely described, and valid reasons for their use given in their appropriate place.

I desire to acknowledge my indebtedness to the work of Messrs. Hirschfeld and Leveille, of Paris, on the Muscular and Nervous System, which is not only the most elegantly illustrated but at the same time the most complete work upon that subject ever published. An examination of this work first suggested to our mind the theory we have indicated in the present work, which subsequent practical experience has greatly strengthened.

To Prof. William Darling, of the New York University Medical College, I feel under a debt of gratitude which I cannot fitly express. His kind and instructive advice on many occasions, as well as the deep interest he has always manifested in the results of our treatment, will ever be most gratefully remembered.

ALBERT J. STEELE.

FRANKLIN ELECTRICAL INSTITUTE, }
89 FULTON STREET, BROOKLYN, N. Y. }



ERRATA.

DURING the preparation of this work, so many errors were made upon our time by the demands of our practice, that a few errors and omissions passed unnoticed until it was too late to correct them.

PAGE 24.—Commencing at the third line, the words “at the nervous cords of the back, at the back of the neck,” should read—to the nervous centre at the back of the neck.

PAGE 26.—Case of Mrs. C. In the fourteenth line it should appear that four treatments per week were given, etc.

Also in note to this case, it must not be inferred that sneezing is a necessary symptom, as it is mentioned merely incidentally.

PAGE 27, CASE 2.—Fourth line should read: There was a discharge from the head to the nose and throat, producing, etc.

PAGE 28.—Ninth line from the top, the words “she subsequently recovered” are a mistake. The line should read—the improvement of her health under our treatment, was very satisfactory to herself and friends.

In the first note on Page 29, we should have said that in this, a genuine case of Hay Catarrh or Rose Fever, electricity not only alleviated, but in a few days completely cured the disease.

Some of our most distinguished clergymen and literary men are subject to this most troublesome complaint—the only remedy for it which one of them is aware of is “under the grave, eight feet deep.” while the experience of the clergymen is that “if tampered with it

will continue for ten weeks, but if let alone it will run its course in six," and this appears to be the prevailing opinion. But we have shown that *it can be cured by the aid of electricity*.

A recent letter from the lady says: "My faith in your electrical treatment is as firm to-day as when a patient under your charge."

In note on page 34, it should appear that the Enema is of Castile soap suds, and the words "extreme cases" should read—all cases.

PAGE 55.—Second line from bottom should read: This is a difficulty very commonly implicating all the genital organs.

PAGE 96.—The word *right* in the twelfth line should be *night*.

PAGE 127, CASE 2.—The words *twenty years* in the second line should be *thirty-four years*.

PAGE 128, CASE 3.—In third line the words "The ulcers were" should read—*The uterus was*.

PAGE 140, CASE 17.—Eleventh line, words "from the cerebellum" should be—*over* the cerebellum.

PAGE 145, CASE 17.—The explanatory note referred to in the seventeenth line has not only been overlooked but the reference to it appears out of its proper place. It referred to the statement of her sufferings while under medical treatment.

During this time she endured cauterizing, leeching, bleeding, the pouring of boiling hot water down her back (the scars of which are still visible), setons (three at a time), and blisters, at the same time receiving as "curative agents" arsenic, calomel, belladonna, henbane, and many others of which she did not know the name, together with narcotics of opium, laudanum and morphine.

We do not mention this for the purpose of casting any reflections

upon the profession, but merely to show that the effect of this method of treatment is an injury rather than a benefit.

SAME CASE, PAGE 147.—The sinking spells referred to in the fifteenth line should have been previously mentioned. They were very severe and dangerous, at times the patient becoming entirely unconscious. They were supposed to proceed from the condition of the uterus as described in the case.

In the twenty-first line, same page, the explanatory note referred to was overlooked.

It should have said that by means of the intra-uterine electrode the condition of the uterus was changed by discharges of very foetid matter, which relieved the sinking spells which had for many years been one of the most dangerous symptoms of the case.

THEORY AND PRACTICE OF ELECTRICAL THERAPEUTICS.

CHAPTER I.

THE HUMAN SYSTEM CONSIDERED AS AN ELECTRICAL MACHINE.

Our investigations of the subject of Electricity and its effects upon the human system have led us irresistibly to the conclusion that man is but an Electrical Machine, and that disease is simply a disturbance or diminution of the electrical forces in the system. We do not purpose to enter into a lengthy consideration of our theory, but will simply give a brief synopsis of it.

The Stomach is a laboratory wherein is generated the electrical forces which sustain life. The pneumo-gastric, or eighth pair of nerves, convey these to the brain, which is the reservoir for them, and from thence they are distributed through the nerves to each and every muscle in the human system.

We are strengthened in this view from the fact that there are one or more nerve branches terminating in each muscle, those at the fountain being the largest in

size and diminishing as they distribute their branches on their course toward the extremities.

The nerves being all connected, it is easy to consider them as telegraph wires, distributing electrical forces from the brain throughout the whole system.

The spinal marrow supplies the nerves which sustain the trunk and intercostal muscles; these nerves run in a horizontal direction, and diminish as they approach the median line or breast-bone, while the cranial nerves diminish as they go downward.

Thus far we have been speaking of the body, and our observation proves that the electrical current is most effective when administered from the head downward. We therefore place the negative sponge electrode at the foot of the patient, and *beginning there*, carefully treat every muscle in the system. In doing this, whatever disturbance there may be in the system will be made manifest, thus proving the necessity of the establishment of an equilibrium. This derangement of the electrical forces is due to congestion, which the electrical current removes, when applied in accordance with the theory before described.

We also find in the sympathetic nervous system, that there are ganglions and plexuses provided for a more ample supply of the vital, digestive and genital organs. By treating these the operator is enabled to control the particular organ with which they may be connected.

In the pneumo-gastric nervous system the nerves extend in every direction, hence when *internal* treatment is given, and a *tonic* is necessary, the current

should flow upward, and in the *contrary direction when a laxative is required.*

CONGESTION.

We believe that congestion, better than any other word, expresses the condition, if not the *primary cause* from whence arises most of the difficulties of a positive nature which afflict the human family.

That our views may not be misconstrued, we will illustrate them as briefly as possible.

If, for example, we strike our arm with a hammer so as to injure it, a swelling ensues, produced, we say, by congestion, the wound assumes a dark appearance, the congestion having interfered with the circulation of the blood. If this is not removed, inflammation and fever intervene; if we leave it for nature alone to remove the congestion, much time will be lost, and sometimes very serious consequences are experienced.

Nature needs assistance; let us help her by placing the negative electrode in the hand, and manipulate with the positive electrical current all over the arm, but more especially around, above and on the wound, and soon the swelling will subside, the circulation resume its natural flow, and all this would be accomplished in half an hour. So it was with the case of the boy herein recorded, who was thrown from a horse, striking on his side on top of a fence-post; within half an hour it was badly swollen, and the patient lay gasping for breath. He sat upon the negative electrode while we thoroughly manipulated (holding the posi-

tive in one hand) all around and over the wound, and in half an hour the swelling had subsided, discoloration nearly gone, and the patient went about his business, when but one hour previous, fears were entertained that the case would prove fatal.

Our theory is, that electricity removed the congestion by forcing the circulation through its natural channels, and thus restored an equilibrium or normal condition.

This, then, is the first thing we have to deal with, and our method of treating we have before described, as well as in the cases recorded, which the reader will find under heads of fever, diphtheria, quinsy, pleurisy, and other diseases of an acute form. In applying electricity we have been accustomed to passing it through our own system and from thence to the patient.

NERVOUS DEBILITY.

This presents the opposite condition of the system. There is no congestion or inflammatory action to retard the working of the machinery; but there is a feeble action in the vital or nerve forces. Either the stomach fails to generate these on account of its own weakness, or some other impeding cause prevents that distribution of them which is necessary to produce a healthy, vigorous action of the system.

The question arises—What is to be done? says one. “You would not apply the same treatment as in a congested, inflammatory condition.” We answer, most assuredly we should! Here is a loss of vital

force necessary to propel the machinery, the stomach is needed to generate that force, but from some cause it is too feeble to perform its functions as it should.

Our first business is to permit it to do just what it is able to, and no more, and supply the deficiency as far as possible by electricity, gently but perseveringly applied, as in the cases cited in this work.

Thus we may confidently rely upon a response truly gratifying to the patient and all concerned.

In conclusion, we would say that, as nutritious food is the substance which generates the electrical forces that sustain life, we believe that nothing else should be taken into the stomach. We regard the use of all drug medicines as not only a mistake, but a positive injury to the system, and we point to the record of cases which follow, to show that good food and electricity, properly applied, are alone sufficient for the successful treatment of disease.

While other and different theories may be set up and speculated upon, one thing is certain, *that the facts herein recorded cannot be changed.*

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CHAPTER II.

GENERAL TREATMENTS.

We have thought it best to devote one chapter of this work to the full explanation of the different general treatments we apply. In our statement of the various cases recorded, we have not the space to enter into the minute details of each of the general treatments given. We shall therefore simply designate them by the particular number they bear in this chapter, by reference to which the reader may readily understand it.

GENERAL TREATMENT NO. I.

It is very important that the patient should assume the most comfortable position possible, that every portion of the body may be at ease.

Let the patient lie on a lounge or bed. If the latter, with the right side toward the operator, so that as he sits looking toward the head of the patient, he can freely operate with his right hand. If the left hand is used, reverse the position of the patient.

(1.) Having thus placed the patient in a favorable position, put the *negative* sponge electrode under the RIGHT FOOT or heel of the patient, the operator hold-

ing the *positive* electrode in the left hand ; commence at the foot, and manipulate by gently pressing with the hand, or rubbing over the foot, ankles, lower leg, and knee to the upper part of the thigh, thoroughly bringing the nerves and muscles under the electric influence.

(2.) Now change the negative electrode to the heel of the *left* foot, and manipulate as before.

(3.) Place both heels upon the negative electrode, and, beginning at the feet as before, manipulate in the same manner upward along both legs and thighs, over the abdomen, stomach, chest, to and including the throat.

(4.) The patient will now, if able, sit up, being careful to keep the negative electrode in position as when lying down, while you manipulate all over the hips, back, shoulders and back of the neck.

(5.) The patient having resumed a reclining position, the operator, after washing his hands, will adjust the current suitably for the treatment of the face and forehead. The negative electrode may be removed to the patient's right hand, while the operator manipulates the whole of the right arm.

(6.) Being then removed to the left hand, the left arm should be treated in a similar manner.

NOTES.

1. It is understood that the wearing apparel be properly loosened or removed, to afford a free access to all parts. When the patient is a female, it is advis-

able to lay aside the dress and hoop skirts (retaining the under-garments), a blanket being over the patient to prevent cold or exposure of person.

2. This electrical treatment, being fully carried out, will occupy from twenty-five to forty minutes, giving each of the nerves and muscles its due share of attention.

3. The electric current is to be regulated to suit the comfort of the patient. More than this is not admissible, or in accordance with nature, and serves to retard the restoration to health.

4. This electrical treatment is always in order, whatever the difficulty may be, and may always be applied with perfect safety, carefully attending to the comfort of the patient.

5. It will be evident, after a very little practical experience, that the force of the electrical current should vary considerably, according to the sensibility of the parts through which it is directed. Thus the feet, liver, limbs, region of the diaphragm, heart, lungs and thorax, are often quite sensitive, while the rest of the body, both back and front, may or may not be insensible to a pretty strong current.

6. Since this mode of treatment is fundamental, most important and universally admissible, *it should in all cases be first applied*; every deviation will be designated in those which will hereafter be described.

7. It will be noticed that in this treatment we observe the proper course of the nerves downward from the head, if we except the intercostal nerves and muscles over the heart and vital organs. To carry

out the treatment fully we may manipulate these by placing the negative electrode on the front median line, operate up and down the spinal cord, removing the negative sponge opposite the positive. In other words, move the two electrodes up and down together, one, the positive, on the back, and the negative on the chest.

GENERAL TREATMENT NO. II.

The patient, as in No. 1, will adjust the wearing apparel and lay both heels upon the negative sponge. Operator will manipulate as in No. 1, electrizing all the nerves and muscles of the whole front surface of the body, including the arms. This having been faithfully accomplished, the patient will sit up as directed in No. 1. The operator going thoroughly over the back, hips, shoulders and back of the neck, and especially over the spinal cord from the region of the cerebellum, or back of the head, to the end of the spinal column. The patient will then resume a reclining position; the operator will wash his hands, and carefully and gently manipulate over the face, forehead and head, with a very light, gentle current.

The Notes attached to Treatment No. 1 serve for direction and observation in this.

TREATMENT NO. III.

The patient, adjusting the wearing apparel, will be seated on the negative electrode; the operator will then proceed to manipulate all over the front

part of the body and limbs, commencing at the feet, then over the back, including hips, shoulders, spinal column, and especially the cerebellum, or little brain, taking care to moisten the hair (since hair, when dry, is a non-conductor), then, tenderly over the head with a very gentle current, such as the patient can receive comfortably.

TREATMENT NO. IV.

The patient will adjust the clothes as in general treatment No. 1, having the negative electrode placed at the lower end of the spinal column.

The operator will commence at the feet, and manipulate as in No. 1. The current in this case passes up the limbs to the spinal column. Thence continue the treatment over the whole front of the person.

Let the patient now, if able,* sit up, and receive similar manipulation over the back, and especially the spinal column, hips, kidneys and shoulders, up to the cerebellum.

Much importance is to be attached to the influence of the electric current over the nervous centres, at the lower portion of the neck on the back.

TREATMENT NO. V.

The patient should be seated on an armless chair, the clothing adjusted so that the operator can easily

* If not able to sit up, the patient may lie on the right side, to enable the operator to reach every part of the body.

reach every part of the body. The feet should be placed in a foot-bath containing a sufficient amount of warm water to reach the calves of the legs. The operator, placing the negative electrode in the water, will now thoroughly manipulate all over the limbs and front portion of the body to the neck, then the back, hips, shoulders and especially the spinal column, going very carefully over the nervous centres back of the neck. The hair should now be moistened, and the back of the head treated with a current as strong as is pleasant to the patient. Then combing the hair out smooth, stroke down the head and manipulate gently over the forehead, temples and face.

TREATMENT NO. VI.

Let the patient assume a sitting or standing posture, as may be most convenient, with the feet resting upon the negative electrode sponge, either on the floor or in a foot-bath, with a little tepid water at the bottom.

The operator, holding the positive electrode sponge in either right or left hand, in his disengaged hand holds a sponge, with which he sponges the whole body, commencing at the feet and proceeding upward. To prevent chilliness or exposure, the patient is enveloped in a blanket thrown loosely over the shoulders.

No. 6 may be changed to a perfectly convenient electro-sponge bath for self-bathing, by taking the positive insulated electrode in either hand, and proceeding to sponge the person, as in an ordinary sponge

bath. This will be found to be a delightful and invigorating electrization, and may always be used, whether in health or sickness, when one is fatigued either mentally or physically.

TREATMENT NO. VII.

An electrical vapor-bath may be given in the same manner as No. 6, only adding vapor, as in a Russian bath, or the common vapor-bath apparatus.* In the absence of these a blanket can be thrown over the person, and vapor produced by putting hot stones into a dish partly filled with water, under the blanket, while the operator manipulates with one hand, as directed in No. 6, or with the sponge, as in a sponge-bath.

Having thoroughly electrized the patient over the entire system, remove the vapor apparatus, rub the skin with flannel till perfectly dry and in a glow, and manipulate the whole person with one hand, having the electrode in the other, as previously directed.

* This is a good substitute when neither the Turkish, Russian nor ordinary vapor-bath is conveniently attainable.

CHAPTER III.

We purpose to give in this and succeeding chapters a statement of some of the cases which have come under our professional treatment. We present them in a simple manner, carefully avoiding, as far as possible, any technical terms which might serve to embarrass the general reader.

. AMAUROSIS.

No. 1.—Miss D., aged 17, troubled with severe headache, eyes very weak and hardly able to bear the light, while any cold or exposure would intensify the difficulty. Sometimes it appeared that reason would be dethroned.

An electrical examination proved that the optic nerve was affected, and caused most of the trouble. Gave Treatment No. 2, and then locally, with the negative at the base of the brain; then, wetting the hair and smoothing it thoroughly, we treated the head with a smooth, bearable current, it being very sensitive. Then, changing the negative from the cerebellum to the crown of the head, we treated with the forefinger around the socket of the eye, *not on the eye-ball*, as the nerves extend only as far as the white of the eye, and join the main optic nerve at the base of the eye-ball, extending a little back, and each side of the crown

of the head. This treatment soon gave permanent relief. She returned to her home, rejoicing in the triumph of electrical treatment, when it had been predicted that it would injure rather than benefit her eyes.

No. 2.—Mrs. B., aged 60. The eyes of this patient were so weak that they could scarcely bear the daylight, while gaslight could not be endured. There was considerable pain, and despair had almost taken possession of her. We gave Treatment No. 2 thoroughly, and then a local one, by placing the negative at the base of the brain, and, after wetting the hair, treating all over the face and head, after which, for a more special treatment, we placed the negative just back of the crown of the head, and with the positive in our left hand, with the forefinger we treated all around the socket of the eye, being careful not to touch the eye-ball. By this means the current acted directly upon the optic nerve.

After receiving about sixteen of these treatments she was enabled to bear the light, and, with the aid of neutral glasses, she received no discomfort from the light of gas.

NOTE.—This was a case of long standing and very troublesome. The state of her eyes was such that when the gas was lighted she either had to retire or cover her eyes entirely.

No. 3.—Mrs. M., aged 35, had been obliged to wear a green blinder extending from above the

eye to below the end of her nose. Any light was extremely painful, and there was very high inflammation. The edge of the eyelids was a continual raw sore.

Gave Treatment No. 2, then locally, by placing the negative at the base of the brain, or cerebellum, and, wetting the head, proceeded as in case No. 1, and produced most happy and speedy results. In two days we dispensed with the blinder, had subdued the inflammation, allowing the eye-lid to heal, and in the course of a week she was able to perform her usual work; took no more treatments, and continued to regain strength until fully restored.

NOTE.—This was a formidable case, and was treated in Chicago in the year 1863. This was in the early part of our professional use of electricity, and the result gave us confidence in its efficacy in the various difficulties of the eye, and we are happy to state that our confidence in its use has been increasing under our observation ever since.

No. 4.—Master M., aged 17, with inflamed sore eyes for several weeks, and growing worse. When we first treated the case they were distressing to behold, looking angry and much swollen. Gave Treatment No. 2, and then manipulated as in case No. 1. Taking about a half a dozen treatments, in as many days, restored the eyes to a healthy condition.

NOTE.—Had another case at the same time, with the same difficulty. These two lads roomed together, used the same towel; both were restored at the same time, by the same treatment. There was great gratitude expressed in both cases for their deliverance from pain and suffering, as well as loss of time.

APOPLEXY.

Mr. C., aged 35. Consciousness suppressed, respiration imperceptible, pulsation nearly so.

We placed the negative in warm water, and putting his feet therein (he reclining on a lounge), gave him Treatment No. 2, and continued it until it was supposed by all who witnessed the scene that the patient was dead. We then lifted the body, the feet remaining in the water, and rested his breast on our shoulders, requesting each one to take a limb and manipulate over them, while we applied a very strong current just below the vital organs, until signs of life appeared, signalized by a deep groan, followed by very difficult respiration, which would again cease, and alternate for several times during the paroxysm, which lasted over two hours and a half. He then returned to his residence convalescent, but weak and feeble. General Treatment No. 2 was continued for several weeks, first every day, then three per week, until his health was fully restored.

ASTHMA.

Mrs. P. had been affected thirteen years with great difficulty of breathing, tightness at the chest, bad cough, frequent expectoration of blood, and much of the time was unable to lie down at night. We found the bronchial tube very sensitive and tender. We gave Treatment No. 2, after which we placed the negative electrode at the base of the spine, and gave a local treatment over the throat and lungs, especially treat-

ing the upper portion of the neck, front, back and sides. We then adjusted a dry napkin round the forefinger, and taking up a drop of water on the ball of the forejoint, put it on the tongue, and administered a very gentle current, which we increased gradually, till it reached the point which could be received by the patient with comfort.

By this mode of treatment the patient was entirely relieved of the malady.

No. 2.—Mrs. W. had been thirty-five years troubled with great difficulty of breathing, and at times could not lie down. During her frequent paroxysms of coughing she would become so exhausted that it seemed as if she could never breathe again.

On our first visit we considered the case so severe that we at once gave a local treatment, placing the negative electrode at the base of the spine. Having raised her to a sitting position, we dipped our hand in hot water and placed it over the bronchial tubes, and maintained it there till she was relieved, which occurred in a few minutes.

We then administered Treatment No. 2, and repeated the local treatment over the bronchial tubes, chest, neck and tongue. This treatment we continued seven days, an hour per day, when she considered herself perfectly cured, expressing great satisfaction at having received the most effectual aid she had ever experienced.

It is our opinion that asthma, in all its stages, can

be relieved by a proper local treatment, directed through the organs affected. We have given two examples of our mode of treatment, but do not consider it necessary to multiply them, as the treatment must correspond to the condition of the patient.

We may observe, however, that we have met with exceptional cases where the inductive current could not be used, while the primary current could be used to great advantage. Example: A lady, who constantly suffered from labored breathing while moving about the house, was induced to join hands in a circle. The moment she felt the current, though very gentle, she let go. Being induced again to join hands, she showed signs of distress, laboring for breath. We laid her on a bed, manipulated over the heart and back, gave her a glass of water, and she was soon restored and well as usual. This is a single exception during a varied experience of eight years of our practice.

BLADDER—INFLAMMATION OF.

No. 1.—Mrs. F., aged 32, had been ill eleven years; could not lie on her side; very acute pain, caused by inflammation of the bladder; the pain was very severe, especially at the urethra. At first this had to be quieted before giving general treatment. This was done by injecting into the bladder a pint of warm water, sweetened a little with loaf sugar. Having done this we inserted a very small catheter, and attaching the negative, manipulated over the abdomen and ovaries (the left being enlarged), also around

the urethra, which was very much inflamed and sensitive. This treatment always quieted her. We then gave Treatment No. 2, and local over the abdomen, ovaries and stomach. She was then turned toward us, and we gave local treatment low down on the spinal cord, small of the back, kidneys, between and over the shoulders, back of the neck, along the base of the brain, then over the front part of the head and face, and down the front and over the abdomen. We then placed an external vaginal electrode, which was of great service, and did much to alleviate her suffering, by treating over the bladder, stomach, ovaries and lower abdomen. The results were very satisfactory. She continued to improve all the time we were able to attend her.

NOTE.—This was an extreme case of suffering, and very careful, delicate treatment was required. An injection of warm sweetened water into the bladder, with the catheter electrode attached to negative, and then electrifying the patient by manipulating all around the body opposite the bladder, has a charming effect on all cases of inflammation of the bladder. Using the fingers around the urethra serves to reduce the inflammation of the valve and urethra. This treatment reduces the most acute suffering from inflammation of the urinary organs.

No. 2.—Mrs. P., aged 47, had irritation and pain, causing an extremely uncomfortable condition of the lower parts of the bladder and urethra. Gave her General Treatment No. 2, then inserted a catheter into the bladder, and attached it to the negative, and treated the abdomen, especially over the bladder, but more particularly the lower portion, and over the parts, espe-

cially low down. She was immediately and entirely relieved of an acute inflammation.

This is a very frequent difficulty, and is often endured in silence, when the itching and uncomfortable sensation does not amount really to a pain. Still it is very annoying, and may generally be entirely subdued by our treatment, as above stated.

BOWELS—INFLAMMATION OF.

No. 1.—Mr. G.'s child, aged 16 months, was given up by the family physician, who came for us to treat the case. Could keep nothing on his stomach, the abdomen was highly inflamed and very sensitive to the touch; nearly unconscious, and life apparently near its close. The child sitting in the nurse's lap, we placed the negative sponge under the lower extremity of the spine, then commenced at the feet, gently treated up the limbs which were not affected, then treated all over the front part of the body, especially the abdomen and stomach. Then turning the child over, we tied the electrode on his feet, while we treated the limbs and back, especially the lower portion, and over the kidneys.

This was continued twice each day, for three days, when the child was considered out of danger by the physician.

NOTE.—When we arrived with the physician the child had thrown off from his stomach what appeared like coffee grounds, similar to that sometimes witnessed in last stages of yellow fever or black vomit.

No. 2.—Mr. A., aged 40, an acute inflammation of the bowels, high fever; could not bear the weight of the bed clothes. He was in extreme agony when we called. Gave Treatment No. 2, then changed the negative to the base of the spine, and gave thorough treatment over the abdomen and chest; turning him on his right side, we manipulated very thoroughly over the back, hips, shoulders and neck. In one hour he was enabled to dress himself, and went down stairs. This was two o'clock P. M. At nine o'clock gave another, as before; next morning he resumed his arduous labors as steward of a hotel.

NOTE.—This was a very satisfactory result of our treatment. He had been blistered on the abdomen, which interfered very much with our treatment. But as it was, congestion was removed, inflammation subdued, and the cure was complete.

No. 3.—Mr. H., age 45, great pain in the abdomen nearly all the time, while he had paroxysms, when it seemed that death would soon be the result. His agony was intense. We commenced by placing the negative at the base of the spine and giving local treatment over the abdomen, then placing the electrode at his feet gave No. 2. The pain was very persistent, and it required one hour and a quarter to get him comfortable. This was continued about two weeks, in which time we gave eight treatments, which removed the difficulty.

NOTE.—This was a very stubborn case, and seemed confined to the intestines; there was not a very inflamed condition of the surface, but more in the peritoneum or lining of the intestines.

The above treatment will alleviate suffering if determined and resolute efforts are made.

BRONCHITIS.

Mrs. M., aged 43. This lady had been afflicted for thirteen years, most of which time she had been unable to lie down with any degree of comfort. When we were called we found her in this condition, with great difficulty in breathing.

We gave Treatment No. 2 thoroughly, then, changing the negative to the base of the spine, we gave special treatment over the abdomen, stomach, heart and bronchial tubes. This gave immediate relief and enabled her to breathe easier. We then treated the back and lower frame, the patient sitting upon the negative. Then causing her to lie down, we placed the negative low down on the back of the neck and treated the head and face all over, including the neck and bronchial tubes. The time occupied in these treatments was about forty-five minutes, and a course of from sixteen to twenty administered every other day effected a cure.

CHAPTER IV.

BURNS.

No. 1.—Mr. S., burned back of the hand against a hot lamp chimney, causing excruciating pain and smarting. We applied a positive sponge electrode, wet in cold water, directly on the burn, which felt agreeable; but the current that passed through it was much better, the negative being in the opposite hand. The current was continued five minutes, when the inflammation and soreness were all removed, and did not trouble the patient while it was healing.

No. 2.—Mr. S., endeavoring to open a box of matches, put the end of his forefinger against one end of the drawer to the box; there was so much resistance that the end stove in, and as the finger went in they all exploded as one match. The end of the finger was covered with burning phosphorus, and was most shockingly burned, causing great pain, as may well be imagined. A very short time after this the finger was plunged into a positive sponge electrode, with the negative in the opposite hand, and the current passed through, lightly at first, but increased as could comfortably be borne. This, continued for five

minutes, removed all the soreness and inflammation, while the wound healed very speedily.

NOTE.—These two cases are cited to show how easily and effectively a great deal of pain and suffering may be subdued in such kinds of accidents, including scalds by steam or hot water, that are almost of daily occurrence. This is a point very remarkable, and of vast importance in more extensive wounds. With the use of electricity, as above indicated, the wounds heal rapidly and free from pain. The cases above cited did not suppurate at all. According to our theory the condition which produces congestion was removed, hence inflammation did not return.

CATALEPSY.

No. 1.—This was a case where nocturnal emission had reduced the system to such an extent that these fits ensued and continued for two or three years, increasing in frequency and severity. We commenced with Treatment No. 2, and continued them three times per week. The fits soon began to diminish in frequency and intensity. The treatment was continued until they were overcome.

The local treatment was a small catheter inserted in the urethra as far as it would pass, being attached to the negative conductor, and then with a very light current manipulating over the back, hips, and lower part of the abdomen.

The other local treatment was a very careful manipulation over the head with the positive current, the negative being applied at the nervous cords of the back, at the back of the neck.

NOTE.—This patient was about twenty years old. Although

young, *self-abuse* had produced these results. When the electrical treatment commenced, he came about two months, generally three times per week, and in the latter part twice per week, until he was considered cured.

No. 2.—Mr. S. This patient was having from five to eight and sometimes ten fits per day, lasting from five to twenty minutes. The whole nervous system would be convulsed, with foaming at the mouth, eyes set, and all the muscles rigid during the paroxysm, and consciousness entirely suspended, with a difficult respiration. There was no period of time or condition in which he was not liable to these attacks more or less. He was also troubled with piles.

Before commencing with this patient, we stipulated that if we undertook the case, *no medicine, wine, or stimulants of any kind should be taken into the stomach.* This being decided upon by the friends, we proceeded with Treatment No. 2 very thoroughly. We then removed the negative electrode to the base of the spinal column, and gave thorough treatment over the abdomen and spine while sitting up. Then combed the hair smooth, and wetting it, we applied a very *light, gentle* current, manipulating over the head, which soon relieved the paroxysms. A continuation of these treatments for a month reduced these attacks to one a week, when they were so alleviated that they were hardly perceptible to those not accustomed to witnessing them.

Some of these favorable results might be attributed to abstinence from stimulating drinks, although he took

nothing stronger than wine, with a raw egg, which before the commencement of his electrical treatment was his only food. We do not know what medicine he had been taking, *but not a particle* was administered while under our charge.

NOTE.—His brother informed the author, while in London, that this case had been submitted to the consideration of some of the most eminent physicians, who could effect nothing, and pronounced it incurable.

CATARRH.

No. 1.—Mrs. C. (Chicago), aged 30, had been for six years afflicted with constant irritation of the passages of the nose and windpipe. The sense of smell was lost, the taste impaired, and a confused sensation, especially when exposed to the open air; she was also troubled with a severe headache. On approaching the patient a fetid odor, exhaled from the diseased organs, was perceptible.

Gave Treatment No. 2. Then applied a negative nasal electrode, internally, to the angle of the nostril above the nerves that affect the teeth.

We then electrized the patient over the forehead and front part of the head, necessarily with a weak current. Four treatments, given at intervals during a period of seven weeks, served to relieve this difficulty, and the patient declared herself well.

NOTE.—Should the patient sneeze on the application of the current, it may be regarded as a sign that the negative electrode is at the right place. At first the patient may be timid, and complain that it is unpleasant; but this feeling will soon subside.

This lady also suffered from uterine, or womb difficulties, which were treated for and relieved at the same time. For particulars refer to the section—"Uterine diseases."

No. 2.—Mrs. S. had been thirteen years afflicted with a very sensitive forehead; could scarcely ride in the open air, however mild the weather, without suffering. There was a chronic discharge from the nose, producing an irritating cough. She suffered from constant thirst and feverish symptoms, with watery eyes and general nervous debility. Gave her Treatment No. 2; then, inserting the nasal electrode as high as it would go, treated the forehead with a very gentle current at first, gradually increasing it as long as it could be comfortably borne. This course of treatment was continued about two months, averaging three times a week, when she was perfectly cured.

NOTE.—Patients suffering from diseases of this nature are generally, as we found in this case, extremely sensitive and need to be treated with gentle firmness, but soon perceive the benefit received from the treatment, and submit with confidence. As they are generally constitutionally liable to be affected by atmospheric changes, they should be cautioned to avoid undue exposure in future.

No. 3.—Mrs. K., discharges from the nostrils, producing great irritation in the throat, and constant bronchial cough, shaking the whole system, and causing great soreness in the breast and abdomen, with severe pain in the head—suffered much from water-brash. Gave Treatment No. 2, followed by local treatment as follows: We placed the negative

electrode at the base of the spine, and manipulated over the abdomen, stomach, breast and liver; then on the spine, finishing with a kind, gentle current over the head and forehead, and a thorough manipulation over the neck and bronchial tubes.

This treatment was continued daily for two months. After the first fortnight she was so improved that she was able to ride to her sister's, whom she had not been able to visit for two years. She subsequently recovered.

No. 4.—Mr. D., aged 45, was troubled with a profuse discharge from the nostrils; the abdomen was very sensitive from constant coughing, and general nervous prostration was manifest. Gave Treatment No. 3. Then, placing the negative electrode at base of spinal column, we gave him a local treatment over the neck and bronchial tubes. After this we placed the negative nasal electrode first up one nostril and then the other; having first dampened and smoothed the hair, we stroked the head down on each side, always from the crown.

NOTE.—This mode of treatment has proved most efficacious in our experience, and invariably resulted in a cure when persevered in.

No. 5. — Mrs. M., aged 50, had suffered periodically for many years, beginning in July, with symptoms of what is commonly termed a violent cold in the head, including a profuse discharge from the nose, watering eyes, sneezing and expectoration.

Gave Treatment No. 3, after which we inserted the nasal electrode, and treated over the head and forehead as described in last case. The second treatment relieved the sneezing, and in three or four days all the symptoms were much alleviated. As she was suffering from uterine, or womb disease, we continued to treat for this, in connection with the treatment suitable for uterine difficulties, hoping thus to eradicate the tendency to a periodic return.

NOTE.—This is the only case of periodical catarrh (in Europe known by the name of *Hay Fever*) that has come under our notice. She had been to Europe, and done all that money could do to obtain relief, but without avail, till relieved as above described.

No. 6.—Mr. B. Symptoms similar to last described. Gave Treatment No. 3 thoroughly. After which, inserting nasal electrode as before described, we treated over head and forehead as before. In about fifteen minutes the sneezing ceased.

NOTE.—This patient was staying at Long Branch, and we only saw him again at the end of thirty-six hours, when he told us that there had been no recurrence of the attack.

No. 7.—Mrs. M., aged 37, had suffered from stoppage in the nostrils and fullness in the head, with a discharge into the throat and through the nostrils, needing constant attention. The slightest exposure, even simply looking out of the window, would aggravate the symptoms and cause severe suffering.

Gave Treatment No. 3, followed by local treatment.

At first she declared she could not bear the nasal electrode; but after a short and gentle treatment she felt so much improved that she would request me to use it.

NOTE.—About twenty treatments during a period of two months removed the difficulty.

No. 8.—Rev. Wm. F., stoppage of one nostril of fifteen years' duration, so that he could not breathe through it, nor could anything pass—constant discharge into the throat, expectoration, much distress in the head, with confused feeling.

Gave Treatment No. 2 thoroughly; after that, inserting nasal electrode, we proceeded to manipulate head and face as before described, except that we left the negative electrode three-fourths of the time in the diseased nostril. Twenty-five or thirty treatments in the course of six weeks eradicated the evil.

NOTE.—The patient expressed extreme pleasure and gratitude for relief from so distressing a malady of so long duration.

CHOLERA MORBUS.

No. 1.—Miss A., aged 20. We found this patient in great agony—the pain was so intense that she was perfectly frantic and tearing her hair.

When she learned that we were about to administer electrical treatment she very strenuously objected, stating that she had at one time or another “taken shocks,” which had nearly killed her. But as her agony required that something must speedily be done, she consented that we should proceed.

We put the negative under the heel, and with the positive in left hand, we placed the right directly over the navel, holding it still with a gentle pressure, while a strong current passed through.

In less than one minute she exclaimed that as it felt so good she wished that we would put on a stronger current. We kept our hand in same position for some minutes, and then changed the negative to the base of the spine and gave local treatment over the abdomen, stomach, heart and throat, and causing her to sit up, we manipulated all over the back. Then changing the negative to the feet again, gave a light treatment all over the front of the body, and left her *sleeping quietly*.

NOTE.—While the above treatment was in progress her friends were discussing the subject of whom they should get to take care of her for a few days, as they expected to leave the next day.

The next morning I met her with her friends on their way out of the city, and she remarked that she felt as well as she ever did in her life, and also expressed profound gratitude for the relief afforded through our treatment.

I must crave the indulgence of the reader while I make a slight digression here.

In the year 1870, having occasion to treat some patients in a distant city, I engaged rooms at a hotel two weeks in advance; but when I went at the time appointed I found the house closed and the funeral of the landlord in progress. Upon inquiring what was the cause of his death I was told it was cholera morbus, which proved fatal in a few hours after the first attack. I inquired further how he had been treated, and was told that the physician had injected large quantities of morphine and strychnine. I knew nothing authentic about it, but could not but believe that a strong current of electricity, ad-

ministered from a warm hand electrode, would have brought him in safety out of it.

The contrast presented in the treatment of the two cases is most marked. Nature was assisted in the one, and *retarded in the other*.

No. 2. — Mr. S., aged 56, was taken with violent vomiting and purging. The evacuations were so frequent that in two hours over thirty took place.

Gave Treatment No. 2, then changed the negative to the rectum, and thoroughly manipulated over the abdomen and stomach. This quieted him, and in three hours the purging and vomiting ceased. The next morning he was as well as ever.

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CHAPTER V.

IMPERFECT CIRCULATION.

No. 1.—Mr. P., aged 70, complained of numbness in his feet; he wished them electrized. Except on the head and below the elbows he could feel nothing from a powerful current applied over the whole system.

Gave him a thorough Treatment No. 2, with the negative remaining at the feet. This continued three times a week, circulation gradually increased, and finally reduced the numbness to one great toe.

NOTE.—This was a case where the patient had taken cold and a severe congestion was the result. A cure could have been effected in much less time if we could have treated him every day, but could only do so Saturday, Sunday and Monday, spending this time professionally at New Haven, Conn.

CONSTIPATION.

No. 1.—Miss L., aged 39, had been troubled all her life, so that she scarcely knew what it was to have a natural evacuation. The medicines she had taken to procure relief had laid the foundation of other complaints, such as depression of spirits, headache, genital weakness, accompanied with pain and lassitude.

Gave Treatment No. 3, followed by local treatment, with the negative electrode at the rectum. We thoroughly manipulated the abdomen, grasping and

gently kneading it, ascending and manipulating the stomach and liver. We then thoroughly electrized the spinal column, especially the lower portion, and finished by a thorough treatment on the front of the neck.

NOTE.—We continued this treatment daily, and in less than a week the bowels resumed their normal condition, being freely and regularly moved. We, however, continued to treat her as long as we continued the treatment for her other difficulties, and had the pleasure to see her restored to good health.

An enema of Castile soap may be use with advantage in extreme cases, *but no drugs should be administered under any circumstances.*

No. 2.—Mr. F. had been for several years in the habit of taking his daily “dinner pills.” His bowels gradually lost the power of natural action, and at last it was difficult to move them at all. He suffered from a heavy pain in the abdomen, piles and incontinence of urine. He had become very weak and low-spirited, while domestic trouble aggravated the evil.

Gave Treatment No. 3, followed by local treatment, with the negative electrode at the rectum, proceeding as last described.

After a week of treatment, about three-quarters of an hour daily, there was a decided improvement in all respects, and his spirits were more buoyant and cheerful. We administered daily an enema of Castile soap, beaten up to a lather, adding a tablespoonful of loaf sugar in two quarts of warm water. This, with the electrization before described, restored the man in

six weeks to better health than he had ever enjoyed before.

NOTE.—Dyspepsia is frequently the source of many troublesome complaints, but often results from and accompanies other maladies. It is, therefore, advisable in all cases to seek the advice of a competent electrician. Where, however, this is impossible, a careful observance of the directions above given will give relief, if not a permanent cure.

We cannot too strongly urge the use of the enema in connection with the treatment, especially in cases of long and obstinate constipation. The possession of a good syringe is often of great importance in a family.

We might give many interesting cases, but think the above will suffice.

CRAMPS.

No. 1.—Mrs. McF., aged 35, had for the past two years been afflicted with severe cramps in the arms and legs, particularly the calves of the legs, which caused intense pain.

Gave Treatment No. 2, then placing negative electrode first at one foot and then the other, thoroughly manipulated each leg from the foot to the pelvis.

The arms being also afflicted, we proceeded with each in the same manner as with the legs, the patient holding the negative in the hand while we manipulated the entire arm.

No. 2.—Mrs. H., aged 37, had violent cramps in the limbs and stomach, at times affecting the greater part of the system, causing very acute pain, without, however, any convulsions.

Gave Treatment No. 2, and then changing the negative to the small of the back, gave a thorough treatment all over the body and arms. Then removing the electrode to the foot, did the same to the legs. Six of these treatments cured her.

DEAFNESS.

Master S., aged 14, had been in sea-surf bathing, and remaining in the water too long had become deaf. When we were called he was delirious, the head and ear seemed congested and very much inflamed, with high fever, mostly confined to the head. We gave him Treatment No. 2 thoroughly, and then changed the negative electrode to the ear and treated the opposite ear all around; then inserted the forefinger with as much current as the patient could comfortably bear. This was continued for eight minutes. The patient then changed sides and we continued the same as before.

In the early part of our treatment the patient ceased his screaming and became quiet; we left him asleep. The next morning he seemed to be as well as if nothing had happened. This whole treatment required nearly one hour. We should remark that the local treatment about the ear was repeated several times, alternating about three times.

NOTE.—This patient was in a dangerous condition when we commenced the treatment, and the results were very pleasing to all who witnessed them. This is the result of electricity in an acute case; but we may as well say here that our treatment is the same in chronic cases. Sending the current through the range

of the nerves in both ears from the finger will quiet any ear-ache, even though there be a gathering ; but to keep it quiet in *that* case it is necessary to continue, even if, you put the sponge like the vaginal electrode saturated in warm water, and crowded into the first cavity of the ear ; this will give relief to any one who has an acute ear-ache. We have no very strong representative cases of chronic deafness, while we have relieved many from one cause or another, as they could not continue long enough for any decided results ; but from our experience we believe that the continuation of the same treatment as the above will cure any case that is curable, unless the necessity of surgery intervenes.

DEPRESSION OF SPIRITS.

No. 1.—Mr. S., aged 35. This gentleman was a nervous dyspeptic, could obtain no sleep, and the danger of losing a matrimonial alliance on account of his health served to aggravate feelings of great despondency.

When he came under our charge he had on his body nearly a dozen “poor man’s plasters,” as he termed them.

Gave him Treatment No. 2 as well as we could between the plasters. We ordered them to be removed, which gave us a fair chance to continue the treatment ; changed the negative to the seat or lower extremity of the back, and treated him over the stomach and liver, and then gently over the vital organs, the back, spinal cord, back of the neck and lower brain. Then gave a very soft, gentle current over the head and forehead, after dampening the hair.

This was continued daily every morning for one

month, at the end of which time he had entirely recovered, and for the past three years has remained perfectly well.

No. 2.—Mr. F., aged 35, came to us almost deranged. Was suffering with dyspepsia, torpid liver and a weakness, causing nocturnal emissions.

Gave him Treatment No. 2, after which we placed the negative at the base of the spine and gave local treatment over the abdomen, stomach, and then the same as case No. 1 for all the local treatments. This mode was continued one month each morning, when his physical condition was entirely changed, spirits entirely elevated to a normal condition, and, as he remarked, he was himself again.

NOTE.—Domestic troubles had much to do with the above case. His wife, as he remarked, had been into free-love society, and neglected her family; but he seemed to rise above it all, and resumed his business again, expressing gratitude for what electrical treatment had done for him.

DIARRHŒA.

Mr. S., aged 57, was taken ill soon after dinner, and was very bad for three hours, having from twenty-five to thirty evacuations. We kept the electricity moving (after No. 2 had been administered) with the negative electrode at the small of the back and between the shoulders and back of the neck, but our main efforts were over the stomach and abdomen. This was continued for at least two hours and a half, occasionally treating the legs, and when a sense of

weakness pervaded the whole system, gave his head a soft, gentle current. By five o'clock he was quiet, evacuations had ceased, he rested well through the night, and next morning he was ready for business.

NOTE.—This case was at Continental Hotel, Long Branch, and, as stated, was very severe. The patient was subject to attacks of this nature during the hot season, and invariably lost his strength to utter prostration, its effects lasting for several days.

DIPHTHERIA.

Mrs. B., aged 33. When we were called to this case they supposed her to be dying; she breathed with great difficulty, her whole system seemed congested, and her flesh was so sensitive that she had a large pillow placed by her side to prevent the weight of the bed clothes from lying upon her.

We gave her Treatment No. 6, put her feet in hot water, and commenced at the feet and worked up on each limb to the body; this was done the second time. At this stage she began to show signs of spasms, became unconseious, frothing at the mouth for some time. We treated the abdomen, stomach and vital organs as quickly as thoroughness would permit, when she revived. We then treated the neck, throat and head; then being able to sit up, gave the back a thorough treatment all over. This gave her relief, and she had no occasion for the second treatment.

NOTE.—This patient was taken only about eighteen hours previous to our visit, and I never saw one in a worse condition and live; there seemed to be a complete congestion and stoppage of circulation throughout the whole system.

No. 2.—Mr. R., aged 60. This patient had been sick about twenty hours, and was in a helpless condition; he could not bear the bed-clothes to touch him, and was in great pain and troubled for breath, with high fever. Bowels in a constipated condition.

Gave him Treatment No. 6, putting the feet and limbs in warm water, in which we placed the negative; we had only treated the limbs when he felt decided relief. We continued the general treatment thoroughly over the whole system, including a light, gentle treatment on the head, forehead and face.

NOTE.—After the above treatment he arose and dressed himself, and two days after he came some twelve miles to see us and express his gratitude for what our electrical treatment had done for him; he observed that it had also taken the rheumatism from him.

Our theory of diphtheria, in brief, is that it is albumen in the blood; that the circulation becomes torpid, the blood thickens, congestion and inflammation are present, and if there is no immediate relief death soon ends the scene.

I lost my wife by diphtheria, and have thoroughly studied the subject. A *post-mortem* examination showed that there was a deposit in the large artery of the heart, which had accumulated until death. Being anxious about her case, not long before her death I inquired of the physicians what they wished to accomplish with the medicine that they were giving. They said they wished to keep the albumen in circulation. When they gave her up to die they remarked that the medicine had not responded as they hoped it would.

This rung a death-knell in my ears for a long time. Oh! could I have known how easily electricity would have kept the albumen in solution and forced the circulation (which subsequent experience has taught me), she could have been saved as well as not. I cannot urge this too strongly; from the babe in arms to old age it is equally efficacious when applied in accordance with our treatment.

DROPSY.

No. 1.—Mrs. H. This was a case that had been under medical treatment for two years, and being pronounced hopeless, *her grave clothes were in readiness* when the case came under electrical treatment.

There was great effusion of dropsical fluid in the abdomen; also a tumor, causing a depression of the womb.

We gave Treatment No. 2 thoroughly, then changing the negative electrode to the lower part of the spine, manipulated the abdomen, back and hips.

We then put the positive electrode at one side of the tumor and the negative at the other (it was considered to weigh about fifteen pounds, seeming to float loosely in the dropsical effusion). Thus the current *was passed through the tumor*. This treatment was continued for several weeks. A gradual improvement continued, effusion was removed, and the tumor reduced to half its former size. The electrical treatment was eventually sufficient to reduce it so much that a surgical operation was rendered feasible, and her health completely restored.

No. 2.—Mr. J., a case where a very great quantity of dropsical matter had accumulated, almost to suffocation. Difficult respiration all the time, the abdomen twice the size of a natural condition.

We gave him Treatment No. 5, lasting one hour twice per day. The patient was not conscious of feeling the electrical current, although it was as strong as

it is necessary to give in any case. The action of the heart was irregular, and distressed him very much. The treatment was continued about eighteen days, when he was relieved from the heart and abdominal difficulty, and was reduced to his natural size.

NOTE.—This gentleman came from Indiana, and was recommended by his physician to recuperate upon the lakes. Failing to reach the boat he came under our treatment.

DYSENTERY.

No. 1.—Mrs. S., aged 87, was suffering very much with dysentery and bloody mucous evacuations, accompanied with *violent fever*. Her whole system seemed to be congested; severe pain in head and chest; could not eat anything.

Gave Treatment No. 2. Then placed negative electrode at the extremity of spine; gave the head (especially), forehead and little brain, a kind, gentle treatment, then a good strong current over the abdomen, which allayed the fever, suspended the pain, and gave the patient quiet and ease.

In about one hour from the close of treatment all former symptoms reappeared. Repeated the treatment, producing the same effect. She rested quiet, and the evacuations were less persistent. Five hours after this, during which time she continued quiet, gave another treatment same as the others. Eight hours later dysentery and fever had ceased. She slept well, her appetite returned and she was enabled to gratify it; when we gave another treatment, just twenty-nine hours after the first, she appeared well, perfectly com-

fortable, walking about the room. The following day she returned home by rail; arriving there, she remarked that she had not felt better in a long time.

NOTE.—Found this lady weeping, believing she would die, and remarking, “that she was perfectly resigned, and prepared to die, but could not bear the thought of dying away from home.”

No. 2.—Mr. S. was taken very suddenly, and from the frequency of the evacuations became very weak and exhausted.

We gave Treatment No. 2, with good vigorous electrizing over the abdomen, stomach, heart and liver, alternating wherever the current produced unpleasant sensations. This was continued until the evacuations subsided, which was in about four hours. The next morning found the patient feeling well, with a fair appetite. Gave him another treatment, same as before, when he required nothing more, resuming his business as usual.

NOTE.—In this case the evacuations were mostly thin, perfectly free from pain or a griping sensation. Perhaps it would be more properly termed summer complaint, or diarrhœa, rather than dysentery. The patient had thirty stools in five hours.

CHAPTER VI.

DYSPEPSIA.

No. 1.—Mrs. S. This was a case of nervous debility, with no appetite and scarcely any digestion, the simplest food causing great distress.

She was very much emaciated, with very feeble circulation, large blotches or blisters one inch or more in size extending over the body; the spinal column so weak as to render her incapable of assuming an erect position and retain it.*

We gave Treatment No. 2 every day for two weeks, and then three per week, until she called herself *well*—in all, covering a space of two months. We gave local treatment, by changing the negative electrode to the base of the spine, and manipulated thoroughly over the liver, breast, stomach and abdomen, with a current agreeable to the patient.

* The spine was curved with a collateral curvature, making one shoulder higher than the other; her dresses were padded on one shoulder to cover the deformity. A support that we call a compensator was used, for description of which see chapter in reference to it.

No. 2.—Miss R. This was the case of a young lady. She could not eat anything with satisfaction ; even the smell of cooking was almost *loathsome*. She was extremely emaciated, and withal very nervous and easily excited.

We used Treatment No. 1 very gently and delicately. After changing negative electrode to the end of the spine, we manipulated over the liver, stomach and abdomen, giving a current pleasant to the patient, as she was extremely sensitive. Directly above the stomach and over the diaphragm we gave thorough manipulations. The throat was much inflamed, with considerable catarrhal affection, which we treated by manipulation over the forehead with the negative nasal electrode first in one nostril, then in the other, the electrode being put above the teeth nerves.

NOTE.—This patient had been suffering for several years, was ghastly pale, had met with several severe falls, and her parents despaired of her recovery ; but two or three weeks of the above daily treatment, of about three-fourths of an hour each day, were so effective that she came right up, with an appetite and relish for hearty food, and has remained healthy.

No. 3.—Miss Y. This case was of a young lady who had never enjoyed comfortable health ; was very nervous, could not eat scarcely anything without distress ; her appetite poor, cold hands and feet, pain in the left side, also headache.

We gave Treatment No. 1, then changed the negative electrode to the lower end of the spinal column, for local treatment, first over the abdomen, liver, ovaries, and over and above the stomach.

We put the negative electrode to the back of the neck, after wetting and smoothing the hair (taking care not to wet the long hair). We then manipulated very kindly and gently all over the head and forehead. We found some very sensitive places, with which we were obliged to be exceedingly careful during several of her first treatments.

NOTE.—Under the above electrical treatment she gradually regained better health than she had ever known before. A more natural and healthy menstruation was produced, which before had been one of her most serious difficulties.

FALLING OF THE PALATE.

Miss S. could hardly articulate a syllable, had been cauterized, and various means used to enable her to follow her occupation as music teacher. It first prevented her from singing with her pupils, then she became so feeble as not to be able to count as she was wont to do. When she came to us we gave Treatment No. 2, then changing the negative close under the chin, gave thorough treatment on the spine below the shoulder blade, over the shoulders and back of the neck, up to the base of the brain. We then changed the negative to the base of the brain, and gave local treatment over the vital organs, bronchial region and neck, then a light gentle current over the head. Fifteen of these treatments fully restored her.

NOTE.—This local treatment gave strength to the vocal organs, operating as a tonic. When she came to us she was despairing of recovery, having failed to find relief until our treatment came to her rescue.

FEVER AND AGUE.

Mr. M., aged 35, having very severe paroxysms of ague and fever every day, was very much distressed in the abdomen, besides the usual symptoms of this very unweleome difficulty, including a great deal of headache, having contracted this disease while in the army. It had been preying upon his system four years or more; the paroxysms had been so severe that he was about to quit business when we were called.

We found him in great distress, with high fever, the chills having passed off.

We gave him Treatment No. 2, and found him extremely tender and sore all over the system, and especially about the abdomen, which was also very much distended. After the regular treatment we continued the negative electrode at the feet, and gave thorough local treatment over the abdomen, stomach, liver, breast and neck; then the patient sitting up, we treated the back, kidneys, shoulders, back of the head and neck; then washing our hands we treated the face and head, which were very sensitive.

We only gave five treatments when he called himself well, and has had no occasion for further attention.

NOTE.—In this case it should be stated that he had great vitality and strong recuperative powers, which readily responded to the treatment. Although of long standing, the disease had assumed an acute form through congestion and consequent inflammation and fever.

Hence the very best condition was presented for the greatest effect of this treatment upon the system.

In this difficulty the liver is largely implicated, and hence local treatment must be most thoroughly administered over this

organ from under the right arm to the termination of short ribs, and from the spinal column to the breast-bone. The negative electrode is usually put at the seat of the patient; this is very efficacious, and enables the patient to sit or lie while being treated. The negative electrode should sometimes during the treatment be placed on the right side of the patient. In this case two reversible electrodes are very convenient.

We only give one representative case, which illustrates our mode of treatment in cases of ague and fever, and we confidently recommend it to all those affected with this difficulty, believing that perseverance will result in a cure.

FELONS AND BOILS.

No. 1.—Miss S. had a very severe pain in the ball of the forefinger, with no perceptible cause. It was thought to be the workings of a felon. She came to us in a great deal of agony. We placed the back of the finger on the positive electrode and the negative on the ball of the finger, the current running through the finger. This was continued some fifteen minutes, when she felt no further trouble with it.

No. 2.—Mr. B., finger swollen very much and extremely painful. There appeared to be three distinct points of culmination, all appearing nearly alike. He was in extreme agony; had not slept for two nights. At this juncture we put several thicknesses of bandage around the finger, wet in warm water, letting the cloth project beyond the end of the finger. To this we wound a piece of wire, and attached the negative conductor to it, and let him hold the positive in the other hand. The pain subsided immediately. He

continued to hold it two or three hours, as he could do nothing else, and the current kept it quite free from pain. Subsequently the boil broke; electricity was continued for one hour longer, when the inflammation subsided. It healed very rapidly, with but little of the soreness usually experienced by those who use other methods of cure.

No. 3.—Mr. M., Chicago. When we were called in this case we found matters in a terrible condition; the felon appeared like a rosebud of large size. The hand was very much swollen, and the entire arm badly congested, attended with acute inflammation and intense pain.

At first the patient utterly refused to submit to electrical treatment, fearing that it would add to his pain, which was almost insupportable. He finally consented to lay the back of his hand on a negative sponge electrode, wet in warm water. We then placed the positive sponge in our left hand, and with another soft sponge in our right, we placed it in the palm of his hand; both the current and the pressure were at first very light, being increased until we had a strong current, with sufficient pressure to secure a good diffusive electrical influence all over the palm. After the first five minutes the patient was easy, and joked about becoming a convert to electrical treatment.

In about a quarter of an hour we requested him to hold the negative in his hand (which previously he had been unable to use). He grasped the sponge, while

we gave the hand and arm a good thorough treatment, at the end of which his arm was free from pain, congestion and inflammation had subsided, and he left us (being on a journey), profuse in his expressions of gratitude for the relief afforded him.

HEADACHE.

No. 1.—Mr. H. This was a case of nervous headache of over twenty years' standing, at intervals from two days to a week, but more general and severe after mental exercise, especially after the labors of the Sabbath, as he was superintendent of a Sunday-school.

When we took charge of the case the difficulty seemed increasing in frequency and severity. Commenced by giving Treatment No. 2, continued daily for one month. We paid particular attention to local treatment of the head, with a light, gentle current, wetting the hair, after which we manipulated upon the nervous centre, back of the neck.

The patient was not regular in his attendance, but came when business favored, during a space of two or three months. He received forty-two treatments, the difficulty daily subsiding, until he pronounced himself well, and only came occasionally for one, two or three a month, merely to stimulate the circulation and prevent any recurrence of the difficulty.

NOTE.—This was a case of indigestion, a congested negative condition, slight circulation, liver much implicated in the above conditions, which received particular attention, by application of a strong electrical current over it.

No. 2.—Mrs. B. This was a case of twenty-five years' standing, and apparently hopeless. When we took charge of it her reason was nearly dethroned. She had reached the period known as the change of life, which seemed to increase the severity of her headache, which was most of the time continuous, while other minor difficulties were presented.

We gave Treatment No. 2. After doing this thoroughly we changed the negative electrode to the lower end of the spinal column, then gave local treatment over the liver and the nervous centre back of the neck and down the spine, then dampening the hair and brushing it smooth, we manipulated with a mild and gentle current over the forehead, top and back of the head, especially over the cerebellum or little brain. Here we found much relief given by using a strong current, passing through the liver and viscera, thus promoting digestion and effecting a cure.

NOTE.—The patient had but brief attention, but was regular in her attendance every day, for two or three weeks, then twice and three times a week, thus passing over a period of from sixty to eighty days, when she pronounced herself well and greatly rejoiced in her emancipation from that wretched condition in which she had so long been a sufferer.

No. 3.—Miss D. This was a case of nervous headache, proceeding from the optic nerves, giving severe pain about the eye, which was incessant and very acute.

We gave Treatment No. 2 thoroughly, then changed

the negative electrode to the nervous centre at back of the neck, then wetting the hair and smoothing it, we manipulated with a very mild, gentle current. At first we used the *primary* until she could bear the inductive current. The head, back of the optic nerve (especially), being extremely sensitive. This being gently but thoroughly done, we changed the negative electrode to just back of the crown of the head, and then manipulated around the socket of the eye, being careful not to press at all upon the eyeball. These treatments were continued daily for nearly three weeks, then three per week for four weeks, after which she returned home comfortable, and continued to improve, though did not remain long enough to produce a permanent cure.

NOTE.—Care in all cases should be taken not to manipulate over the ball and sight of the eye, since the nerves terminate in a circle around the eyeball. By placing the negative electrode just back of the crown of the head, while manipulating around the eye, it takes the electrical current directly along the optic nerve, and never fails to give relief. When care is observed in the application of the current, it never should be so strong as to be at all uncomfortable for the patient.

INCONTINENCE OF URINE.

No. 1.—Mr. M., aged 50, was in a very feeble condition, resulting from a long and severe attack of fever; he was not able to sit up when we first saw him. In addition to this he was afflicted with an inability to retain his urine. This had troubled him to a very great extent for the past thirty years, obliging him frequently to rise ten or fifteen times during

the night. We gave Treatment No. 2, and then changing the negative to the small of the back, gave special treatment about the perinæum, all over the pubes and testicles, with the positive current.

This relieved him of his urinary derangement, and other treatments, which were given with special reference to his other difficulties, eventually restored him to perfect health.

About thirty in all were given, applied on alternate days.

No. 2.—Miss S., aged 13, was much troubled with inability to retain her urine, so that the wetting of the bed at night and her clothes by day was a source of constant annoyance.

We gave Treatment No. 2, then placed the negative electrode just above the kidneys and gave a strong current over the extremity of the abdomen, about the vagina. Then all over the abdomen and stomach.

A cure was effected in two treatments of half an hour each.

Three months after this, in taking cold, slight symptoms reappeared. One treatment, similar to those before described, was sufficient to abate the difficulty.

CHAPTER VII.

JAUNDICE.

No. 1.—Mrs. P., aged 38, had been ill for a long time ; her face, neck and eyes were very yellow. She was badly constipated and dyspeptic, very weak and feeble, with distressing pains at intervals. The gases formed in the stomach by fermentation of the food gave her a bloated appearance.

We gave Treatment No. 2, and then changed the negative to the base of the spine, and gave thorough treatment over the abdomen, stomach, ovaries, breast, and especially the liver from the lower ribs to close under the right arm, and continued from spinal column to breast-bone. To this region we gave thorough treatment. We also treated the head and forehead with a light current. The patient was unable to feel anything of the current for several days. We continued this daily (excepting Sunday) for two weeks, the patient improving all the time. We then gave treatment on alternate days for two weeks longer, when there was no further need of our services.

NOTE.—At the completion of the time mentioned above the patient could partake of any food with perfect impunity ; her digestion was perfectly restored, and everything satisfactory, both to herself and friends.

KIDNEYS—AFFECTION OF.

Mr. S., aged 35. When we were called to this case he was suffering excruciating pains from and just below the kidneys. It seemed something like a stone passing the gall duct. We had no time to give general treatment at first, but placed the negative at the lower end of the spine, and applied a strong current over and just above the kidneys, both back and front. This caused him to vomit profusely; after which, by holding the hand directly over the pain, we gave him relief. His urinary discharges were at times profuse, and at others very scanty, and of the color of brickdust.

On our second visit we commenced with General Treatment No. 2, and then locally as above.

This was continued twice a day for three days, and then once a day, until at the end of a week he was well.

NOTE.—We could cite other cases wherein other difficulties were present, which we have cured by the electrical current; but it is not necessary. We would say, however, that we gave in all cases the above course of treatment for affections of the kidneys, and always found it very efficacious in removing the difficulty, which is very distressing. It is not unfrequent that patients get an idea that they have an affection of the kidneys, judging from a pain in the small of the back, and this is more frequent in females when a *genital* affection is the cause and not the kidneys. This found to be so, the patient frequently feels relieved from fear it was Bright's disease of the kidneys.

LEUCORRHEA, OR WHITES.

This is a difficulty very common to all the genital organs, and accompanies almost every case of obli-

quity of the uterus. It is an evidence of weakness, and is also a great drain upon the system.

The treatment designated for womb difficulties usually removes the difficulty after general treatment.

For this specific difficulty we use a vaginal or uterine electrode at the uterus, and good thorough treatment over the abdomen, stomach and the spinal column, which the reader will find fully described in the cases recorded under head of uterine difficulties.

LIVER COMPLAINT.

No. 1.—Case of a gentleman whose principal difficulty proceeded from the liver. There was chronic inflammation; a congested, inactive condition. His complexion was sallow, with general prostration of the system. He had been gradually growing worse for some time.

We gave him Treatment No. 2 thoroughly, and a more thorough local treatment over the head, down the right side from the arm to the hip, but more particularly under the right arm, and front to the sternum or breast-bone. Enemas of Castile soap suds were given every day, when there was no natural evacuation.

NOTE.—During the first treatment the patient complained of soreness, attended with great languor; but as we proceeded from day to day these feelings gradually subsided, and health was restored.

This course of treatment continued about two months, the first two weeks daily, then four treatments per week, after which three were given.

There are so many diseases arising from the liver, producing other symptoms, and they enter so largely into other complaints,

such as dyspepsia, jaundice, &c., that it is difficult to be strictly confined to the liver in our statements, while other parts are suffering from the same cause.

LOSS OF VOICE.

Mr. C. for nine months had not been able to speak above a low whisper, and when we were called it was exceedingly difficult to understand him.

We gave him Treatment No 2, and then a local treatment, by applying the negative electrode at the base of the spine, and treating the body all over, manipulating the head and forehead with a gentle current, after which wrapping a napkin around our forefinger, and wetting the end with a drop of water, we bade him run out his tongue, and gave it a good treatment of about five minutes' duration. At the end of this time he was able to speak as well as ever, and the second treatment completed a full restoration of his voice.

NOTE.—This was thought to be a remarkable cure, but it was nevertheless very simple. The electrical forces in the parts affected had become weakened, and all that was necessary to be done was to assist nature in recuperating the parts, which was done by the proper application of electricity.

LUMBAGO.

No. 1.—Miss McD. This patient having suffered three or four days with neuralgia and lumbago, and having used various remedies without success, we were called, and found her in great agony, unable to move on account of her back.

Gave her Treatment No. 2 thoroughly. Being now

able to sit up, we changed the negative electrode to the extremity of the spine, and manipulated thoroughly over it,* which checked the difficulty in the back. This treatment was continued with a strong current up and down the spinal column, occupying about three-fourths of an hour. We left her entirely free of pain, and have had no occasion to see her since.

No. 2.—Mr. R. This patient was brought down by slipping and wrenching his body, or in other words, twisting his body below the short ribs in an effort to save himself from falling. The effort and fall prostrated him, and he was carried home in a helpless condition, unable to stand or sit, and in great distress when lying down. This was his condition when we were called to administer electrical treatment.

We commenced with Treatment No. 6, giving a heroic current. We then changed the electrode from the hot water, and had him sit upon the electrode, wiping the feet dry. A local application was made above and at the seat of difficulty, electrizing thoroughly all the parts, and *locally* on the back fully one hour. This process was continued every evening, and once in morning, giving him in four days five treatments, when the patient so far recovered as to resume his business, and needed no further treatment.

* The current should pass *through* the part affected, which should be between the positive and the negative electrodes.

NOTE.—There was congestion, caused by the wrench and fall, which retarded the circulation so much that the affected parts were discolored and very painful. The first and second treatments caused a very copious evacuation, after which nature assumed a healthy digestion, and the ultimate result was very satisfactory to the patient as well as to myself.

No. 3.—Mr. S. This was a case taken very suddenly, with a terribly acute pain in the back, which prevented any motion without great suffering; could neither sit, stand nor recline with any ease or comfort. The patient took position by sitting upon the negative electrode, and Treatment No. 6 was given, after which he was manipulated with a very strong current over the back as well as the part affected. This was continued for fifteen or twenty minutes thoroughly, when the patient was enabled to get up, move about, stoop and twist his body, &c. He found no more difficulty.

NOTE.—This patient had been subject to these attacks from the same cause, and disabled for a week, and sometimes two weeks. The above treatment removed the cause, since which he has been free from the slightest attack from it.

No. 4.—Mr. S. This patient had been suffering for weeks, unable to help himself, enduring great pain, somewhat different from an ordinary "crick in the back;" it was painful even when there was no exertion made, and increased at every attempt to move. This pain was from the centre of a *mark* in the back, not unlike the appearance of a healed wound, larger than the whole palm of the hand, or three

inches in circumference ; it was so at birth. He was twenty-six years old, and it had troubled him several times previously, but nothing like this. The intensity of pain became so severe that for ten days he could not be removed from his reclining chair. It was with the greatest difficulty that he could swallow food or drink. It even distressed him to breathe, so sensitive was the least move of the muscles at the small of the back, the seat of the difficulty. We applied Treatment No. 6 as far as possible, the patient sitting in an arm chair, after which we applied local treatment over and above the part affected. This was so sensitive that we could not manipulate with the hand, and were obliged to double a cloth several thicknesses, and after wetting it in hot water, placed this with the electrode laid under the top layer of the compress upon the affected part. This process was continued while the patient was in this low condition for ten days. One treatment, from one hour to an hour and a half each day, was given, when he commenced to improve, and continued so, until he recovered entirely.

NOTE.—This patient was so low that his friends were notified that he was in a very dangerous condition, and not expected to live, which brought some of them to his bedside, who found him able to walk ; the crisis having passed, he recuperated rapidly.

No. 5.—Mr. B. This person, while on a visit to some friends in Connecticut, was without a moment's notice attacked with an intense pain in the small of the back and right leg. It was impossible for him

either to sit or lie down for five minutes at a time and the only relief he experienced was by assuming a standing position. For three days and two nights this continued, without sleep, and his agony was so intense that he concluded to shorten his visit and come to New York for electrical treatment. He was obliged to remain upon his feet until he reached his home, when, as soon as possible, he placed the right foot in a pail of warm water, in which was placed the negative electrode, and wrapped a wet cloth containing the positive sponge electrode at the base of the spine. This was continued for about twenty minutes, when he was enabled to lie down, at which time the negative electrode was fastened upon the right heel. He soon fell asleep, and awoke the next morning feeling, as he expressed it, "like a new man." He has not had an attack since.

MENSES—SUPPRESSION OF.

Miss Y., aged 20, had suffered for a long time with difficult and painful menstruation. We had previously treated her for general nervous debility, when about seventeen years old.

The present difficulty had been increasing until we were called to attend her.

We gave her Treatment No. 2, after which, changing the negative to the perinæum, and pressing the limbs close, we gave local treatment over the viscera, stomach and breasts, then over the back: especially the lower portion.

We then inserted the small vaginal electrode, and

attaching it to the negative, pursued the same course as when the negative was at the perinaeum.

This was continued three times a week for one month, when an easy menstrual flow took place. The family were so pleased that they insisted upon another month's treatment, which produced favorable results, and her menses have ever since been easy and regular.

MINISTER'S SORE THROAT.

Rev. J. S., affection of the throat, causing an impediment in his speech, some letters being very difficult for him to articulate properly. It was so great an effort for him to speak that his countenance was distorted, which made it very unpleasant for his congregation to see, or listen to him.

An electrical diagnosis of his case showed the nerves of the vocal organs to be very weak and sensitive. This was the only difficulty apparent.

We gave Treatment No. 2, then placed the negative sponge under the chin, changing it to the back and sides of the neck, while we manipulated with the positive on the side directly opposite. Then the patient applied a negative throat electrode over the inflamed and sore places in the mouth and throat, as far as could be reached, while we treated the outside of the neck with the positive current as strong as he could bear pleasantly. In three weeks he recovered fully, receiving but fourteen treatments.

NOTE.—This gentleman was obliged to give up his favorite profession that he had pursued for twenty-five years, and engage in other business. After being cured as above, he took another charge, and continued the ministry.

CHAPTER VIII.

NERVOUS DEBILITY.

No. 1.—Mrs. R. This lady's case was of long standing ; very feeble, suffered terribly with nervousness through the entire system, with pain in the lower limbs, and was also suffering from uterine enlargement, congestion, &c. Treatment No. 1 was given three times per week for two weeks ; after this No. 2 was applied.

In this case the negative electrode was placed at the base of the spine. We gave local treatment over the abdomen, ovaries and stomach, the patient sitting up if able ; if not, she was turned upon the right side, enabling us to treat the lower part of the spine, over the kidneys and base of the brain : then the patient was turned on her back, the head receiving treatment carefully over the forehead ; then dampening the hair, gave a gentle treatment over the very tender places, the current being reduced to suit the condition of the patient.

NOTE.—In the course of these treatments, averaging three a week for two months, the difficulties that she had previously endured for eleven years were removed.

No. 2.—Mrs. K., a lady aged 67, had suffered many years. The trouble was catarrh in the head, with a

continual dropping in the throat, causing an irritation and producing a cough, which racked the whole system, with some pain about the breasts, causing fear of cancer; was also troubled with dyspepsia, no appetite, and food, when taken, greatly distressed her.

Gave her Treatment No. 2. The difficulty extending through the system, we found it best to continue the negative on the heels. For local treatment we electrized thoroughly with the hand over the abdomen, stomach, breast, head, back of the neck and little brain; after which we changed the negative to a nasal electrode, and manipulated around the head and forehead with a gentle current.

This patient received this treatment for two months, every day, and sometimes twice a day. She received great benefit and improved as long as she was under our care.

NOTE.—The trouble with this patient was that she frequently overtaxed her strength when she felt better, which put her back for two or three days. This is our general experience; where there is improvement from any chronic difficulties, the satisfaction is so great that they frequently overdo. •

No. 3.—Mr. C., aged 57, had suffered for a long time, and was in a very feeble, nervous condition, especially for the seven months previous to our taking charge of him. He had the catarrh badly; one nostril was much swollen. He was also troubled with dyspepsia and all its concomitant evils, fearful palpitation of the heart, a swelling in the right side of the spinal column, in the region of the

kidneys, which was very sensitive, and if pressed upon but gently would cause nausea, and if persisted in, vomiting ensued. His condition was described by his wife as being so exceedingly feeble and nervous that he would weep at the slightest thing.

Gave Treatment No. 1 mildly and gently, scarcely perceptible to the operator; after this the negative was put to the base of the spine; then local treatment was given, the patient reclining on his right side, and with a very gentle, smooth current, we electrized the swelling, which affected the stomach by nauseating it. We then continued up the spine to the base of the brain. The patient then turned upon his back, and we electrized the stomach and head, and at last the catarrh was treated with a light and gentle current; his left nostril could only be treated lightly with a soft sponge from the hand: the right side of the upper lip was much swollen by poisonous discharge from the nostril. All this required the most delicate electrizing in order to keep the patient quiet.

This mode of treatment was continued daily from June until September. This included crossing the Atlantic.

NOTE.—His improv. ment was perceptible from week to week until September, when he felt able to go to Europe. Accordingly on the 2d of September we sailed in the Cunard steamer Cuba. The treatments were continued every day during the voyage, if we may except a severe storm lasting about twelve hours, which the sailors said was the tail end of a cyclone. The gentleman and wife were preserved from sea-sickness.* He

* See chapter on sea-sickness.

received the last treatment as we approached Queenstown, Ireland. Being no longer a patient, he went ashore, traveled through Ireland, Scotland and a portion of England, while we went to Liverpool, London and Paris. After one month we met again at Liverpool. Our former patient had every appearance of renewed health, was able to endure any fatigue in traveling, and continued to travel over fifteen months. When he returned he was looking nicely. His gratitude was unbounded for his emancipation from the terrible condition in which we found him. He said he was willing to take a carriage, put a flag on one side stating his condition, and on the other by whom and with what treatment he recovered his health.

No. 4.—Mr. B., a gentleman who had been an invalid for twenty years. When we were first called he was suffering from a severe rheumatic affection, being unable to lift a book or turn a leaf; extremely sensitive to the touch, and a damp sponge electrode, even on the hand or heel, caused extreme suffering.

We gave General Treatment No. 1. This was an extremely delicate operation (see note). The negative sponge could not be put in any other position, being so sensitive to dampness. Hence we gave local treatment over varicose veins on the legs, also the abdomen, stomach, throat and shoulders. We then turned him on the right side, same as in general treatment, gave him a gentle electrizing over the back, and then turning him over again, gave him a very delicate and gentle treatment over the head, which was partially bald. This occupied at least one hour every day for two months, except at short intervals. At the end of this time he was so far restored as to walk two or

three miles, work in his garden, and do all that his business required.

NOTE.—The diagnosis of this case showed that for more than twenty years he had not been out on an average, more than six days, in the hottest season of the year, *without an overcoat buttoned closely*. He had, previous to his marriage, taken quantities of calomel, which had affected his system. We would mention that the varicose veins on his limbs disappeared; his hair also became dark and natural, and ceased to fall off. There were many other interesting features connected with this case that were truly gratifying.

No. 5.—Mr. W., a gentleman who was suffering intensely from nervousness and general prostration of the entire system. Was peculiarly sensitive to the touch all over the body; his mind wandering at times; things different from what they appeared (as he expressed it). He had also a swelling on the back, over the right kidney, that was extremely sensitive; no appetite or sleep.

We gave No. 1st in the most delicate manner. We then changed the negative electrode to the extremity of the spine (the patient sitting upon it), and treated the swelling on the back with a light, gentle current; also over the back, liver, nervous centre back of the neck, then the *vital organs*. Each treatment occupied full half an hour. Soon his appetite improved, and his sleepless nights were changed to quiet and rest. He said, "he could now enjoy fourteen hours' sleep."

This patient received these electrical treatments daily, with few exceptions, for two months. At the

end of this time he called himself well, and we ceased to give further treatment.

NOTE.—This had been a long standing difficulty, and was supposed to be *hereditary*; the inference was that he could not be cured. It is now over two years since we treated him. We meet him occasionally, and he appears well and healthy.

No. 6.—Miss L., aged 38, suffering from extreme nervous debility, affecting the mind. There seemed to be no particular locality affected more than another, except the head. Attending one of our lectures, she was induced to place herself under our care.

We gave Treatment No. 1 very delicately, and with a low current. She felt extremely sensitive, fearing we should give too much. We were obliged to use caution, and only gave treatment three times per week. After a few treatments she commenced improving, and in a month or so called herself well.

NOTE.—Never was more gratitude expressed than by this patient. She had experienced great trouble in financial matters (being a wealthy lady). Parties had tried to defraud her, and a long tedious *law suit* had been pending in which her interest was deeply involved. Our electrical treatment proved a perfect *panacea* for her troubled mind, and recuperated her emaciated physical condition.

No. 7.—Mr. W. had been ill for several months with fever and rheumatism, which reduced the system to a very low, nervous condition. He was just able to move his feet on the floor; to stand erect was im-

possible, on account of a kind of lumbago, which was severe.

Gave Treatment No. 2 thoroughly, then removed the negative electrode to the base of the spinal column and gave the back a thorough local treatment, also the stomach and abdomen. The first treatment gave so much relief that he felt himself able to go out with some friends. The result was that he overtaxed his strength, and we were sent for again. We found him in a raging fever. We were again successful in allaying it, and reducing the pain by the same process as stated above.

NOTE.—About two hours after the last treatment, the fever, caused by cold and congestion, returned again. Not understanding that our treatment was the most speedy and effective remedy for fever, another physician was called; we did not see the patient again for two weeks, when we were sent for, and found that he had been having a severe time. The fever had left him, but he was very feeble. We resumed electrical treatment as above. In the course of two or three weeks he recovered his health permanently.

No. 8.—Mrs. Y., aged 32. This lady had been unable to sit up for several months, and when we were called we found her in a helpless condition. She could scarcely speak audibly, was hardly able to lift her hand, and with appetite so poor that she scarcely took any nourishment.

We gave her Treatment No. 2, which proved very soothing to the nerves.

In the course of our treatment we discovered that

genital difficulties had the most to do with, if they were not indeed the prime cause of, her trouble.

We gave local treatment, with the negative attached to the vaginal electrode. She improved very satisfactorily; but we soon found it necessary to use the abdominal supporter and uterine electrode, continuing the general treatment; and then changing the negative to the uterine electrode, gave local treatment over the abdomen, ovaries, stomach, breast and liver: then turning her on the right side, treated the back, kidneys, shoulders, neck and back of the head. The patient again lying on her back, we treated the head and forehead with a light current, and finished by manipulating the front portion of the body, as in the general treatment.

This left her very quiet; she went to sleep, and after awakening called for food, which she partook of with a relish. Her health gradually improved, and in the course of three months she was able to attend to her household affairs, or visit among her neighbors, when our professional services ceased.

NOTE --It will readily be inferred that this patient was in a dangerous condition—in short, her death was confidently expected in a short time. Two years have passed since we treated her, and her health remains perfect.

NEURALGIC FEVER.

No. 1.—Mrs. H. This patient was suffering intense pain throughout the entire system. The symptoms indicated congestion, and the fever ran very high.

We gave Treatment No. 2, spending about three-

quarters of an hour in manipulation. As soon as we reached the nervous centre we could control the pain by putting a strong electric current on the nerves emanating from the base of the little brain.

After the patient was relieved we dampened her hair, and stroking the head and forehead with the hand, the patient became soothed, shortly fell asleep, and rested quietly through the night. The next day we found that, with the exception of the right knee, all her previous congestion, inflammation and pain had left her. The knee having been dislocated some months before, had troubled her ever since.

We gave Treatment No. 2, and then a thorough local treatment up to the hip, and more especially over, above and below the knee, which removed the pain immediately, and in an hour every difficulty had been removed, and our services were not required any longer.

No. 2.—Mrs. M., aged 36, had suffered intense pain all over the system, but more particularly in the head, face and back.

Gave Treatment No. 2, after which changed the negative to the base of the spine, and gave thorough local treatment over the abdomen, stomach, heart and liver; then turning her on the right side, thoroughly treated the back where most affected, as well as all over the shoulders and back of the head. The patient lying again on her back, we gave a light treatment over the head, forehead and face.

The treatment occupied about one hour, at the end of which all the pain and trouble disappeared, and we had no occasion to see her again.

No. 3.—Mrs. B., aged 60, had suffered for some time with neuralgia in the left shoulder, which at times was very painful.

We gave Treatment No. 2, then put the negative at the base of the spine, and treated the whole body thoroughly, but particularly over and above the shoulder. This last we continued nearly half an hour, or rather more than one-half the time employed in the whole treatment. Sixteen treatments, within a period of six weeks, eradicated a difficulty that had been, as she expressed it, the bane of her life for several years.

No. 4.—Dr. B., aged 50, great pain in the face, with muscular contractions, extensive inflammation, affecting all the faeial nerves; those on the right side of the nose were very painful, frequently so much so as to prevent him from getting any sleep at night. Seating him upon the negative, we gave a thorough treatment all over the front and back of the system. Then ehanging the negative to the baek of the neek, we treated the head with a gentle eurrent, first dampening the hair. We then treated the faeial nerves, but partieularly on the left side of the nose, where there was a contraction of the nerves and museles. We did

this by concentrating the current on the forefinger, and with it passing over the affected parts.

About twenty minutes were necessary to effect a cure.

NOTE.—While this case can scarcely be classed with those of neuralgic fever, it will nevertheless serve to illustrate our mode of treatment in like cases.

EFFECTS OF OPIUM.

Mr. S. had been addicted to the use of opium for twelve years; had become delirious, abusive to his family, and had determined upon committing suicide.

By the persuasion of friends he gave up his stock of opium and money, and placed himself under our treatment. We gave No. 2, and then with a very light, soothing current gave his head especial attention. This seemed to stimulate in the absence of the opium, having a very beneficial effect, so much so that he did not feel the loss of the opium until the fourth day, when he asked "if he could have a little." We referred him to his agreement with us, to take no more if we would take his case. He acquiesced, and made no further effort to obtain it. His appetite improved as the desire for opium decreased. The treatment continued about three weeks daily, when he was fully restored.

PALPITATION OF THE HEART.

No. 1.—Mrs. W., aged 38, had been troubled with an affection of the heart for twenty years; had been a great sufferer, and expected to be the remainder of her life.

She was told it was an organic disease of the heart. Suffered from fearful paroxysms when we took an electrical diagnosis of her case, which gave indication of being sympathetic and not organic. We gave Treatment No. 2, then changed the negative to the seat, and treated the abdomen, stomach and liver; then raising her up, treated the spinal column and over the back. Again reclining, commenced at the lower portion of the vital organs at the solar plexus, then gradually and carefully treating with a soft, smooth current the heart, lungs and throat. This treatment gave immediate relief when applied during the paroxysms.

This treatment was continued daily for two months, at the end of which time she was entirely cured.

NOTE.—This was a most difficult case, and one the treatment of which we undertook with but little hope of success.

The result, as above stated, was the means of introducing our mode of treatment into the family, and for the past three years they have been enabled, with the generator, to treat themselves, thus dispensing with the service of a physician.

No. 2.—Miss R., aged 43, had sinking spells, while her heart would be in great distress, and palpitate so that a movement of the bed-clothes was perceptible. She had been weak and feeble in other respects for a long time with difficulties that influenced the heart's action, and caused the sinking spells she so much dreaded.

We gave several of the general treatments, principally No. 2; then local'y in precisely the same man-

ner as case No. 1. Added to this case was great pain and heat about the head, especially the crown and forehead; for this we dampened the hair with cold water, since that felt the most grateful; we then placed the open hand over the crown of the head, all the fingers and palm of the hand fitting closely, with a gentle pressure and a soft, smooth current, increasing as long as it felt grateful; then, gently moved the hand over the head and forehead. This always removed the pain, even when, as she expressed it, "it seemed as though reason would be dethroned." This trouble was prolonged very much on account of other difficulties; but it was eventually removed, greatly to the relief of the patient.

No. 3.—Mrs. O., aged 35, had been ill many years, with other troubles. The palpitation of the heart was so great that it was necessary sometimes to press the hand very hard upon it, for, as she expressed it, "it seemed as though it would burst," causing blindness and vomiting.

Gave Treatment No. 2, then local, by applying the negative sponge at the small of the back, treating the abdomen, ovaries and stomach; then turning her on her right side, gave the small of the back, kidneys and liver very thorough treatment; also the spinal column. We then commenced at the solar plexus, or lower end of the breast-bone, and treated carefully each muscle up to the chin, then in the same manner back to the solar plexus again.

This mode of treatment removed all her difficulties. When we commenced the case she could not retain anything on her stomach ; but she was now enabled to gratify with impunity the cravings of her appetite.

Her other difficulties had all subsided, when our services ended, and she took a sea voyage.

CHAPTER IX.

PARALYSIS.

No. 1.—Mrs. H., a case of six months' standing. One side of the face was very much distorted from contraction of the facial nerves. The tongue was nearly useless, articulation almost impossible and a very weak and nervous condition of the whole system, together with prolapsus uteri.

Gave Treatment No. 2; after this removed the electrode to vagina, and gave local treatment over the abdomen, stomach, liver, spinal column and little brain; then treated the tongue by winding a portion of a napkin around the forefinger, putting a drop of water at the extreme end, and sending a good strong current through it. We then gave the facial nerves and head a good bearable current for ten minutes; continued this, with very little variation for about three weeks daily, when all her difficulties disappeared, and she went home rejoicing for what had been done for her.

NOTE.—The genital difficulties received special attention, and were removed with the aid of the internal vaginal electrode. (See chapter on uterine difficulties.)

No. 2.—Mr. B., aged 84, had a stroke of hemiplegia; could not articulate a word or help himself; his general health tolerably good, appetite fair,

but digestion impaired. He could move his limbs but very little, his arm not all; hand much swollen.

This was his general condition when we gave the first treatment. Gave No. 6, and then for local treatment placed the electrode in the paralyzed hand, treating the head, tongue and spinal column.

NOTE.—One month's treatment three times per week enabled him to go down in the parlor, and at the expiration of two months more he showed some improvement, but not as much as the first month. We treated him no longer, the family getting a generator, and continuing the treatment with success. The friends were gratified with the improvement made; it had prevented other attacks.

No. 3.—Mr. F. had a partial paralysis of right arm, preventing all use of it. Although the power, or motion, was not entirely suspended, he could not write. He had been so for three or four years. We gave him Treatment No. 6; then changed the negative electrode to the right hand, and gave that arm a thorough electrization; also the other arm, shoulders and heart, continuing the negative in the afflicted hand. Our treatment in the course of three weeks removed the difficulty.

No. 4.—Miss P., aged 17, was brought to us from a bed of long-continued sickness, paralyzed and almost blind; just previous to coming to us she had a severe fever, which left small red spots, the size of a small pea, pervading the whole body, so compact as

to touch each other. Her emaciation and feebleness were complete. Gave Treatment No. 2, and continuing the negative at the feet, gave local treatment to every part affected. For the eyes the negative was placed on the head, just back of the crown, being careful to dampen the hair just sufficiently to have the current perceptible; then electrized around the eyeball, on and within the socket, but not over the ball, as the branches of the optic nerves only extend as far as the white of the eye; we thus treated the optic nerves. These treatments occupied a full hour three times during each week for two months, when she was cured of all her difficulties.

NOTE.—We can scarcely give an adequate idea of the miserable condition she was in. The results produced were some of the best in our electrical experience.

No. 5.—Mr. S. lost the use of his right arm by being in bathing too long when heated. He could not move it when we were called.

Gave him Treatment No. 2, then changed the negative electrode to his right hand, holding it on, and gave the arm a thorough electrizing, then over the upper portion of the body, the negative remaining in the hand. The first treatment fully restored the arm; the patient arose, dressed himself, and felt no more difficulty.

NOTE.—This patient had suffered from paralysis for the past ten years; had used crutches for a long time. The above treatment inspired confidence in the belief that a continuance of it

would remove his chronic difficulty. Subsequently electrical treatments, perhaps twenty-five in all, at irregular intervals of two or three months, fully removed it.

No. 6.—Mr. E., ease of general paralysis. We arrived within half an hour after the stroke. Gave Treatment No. 2, and another in the afternoon. The next morning we called and found another physician had been summoned, who had administered calomel.

We refused to continue ; but the next day all other means were suspended, and we continued the treatment in the same manner, giving local electrization over the parts most affected, until he was able to sit up and walk, and then to ride. In all about twenty treatments were given, and in the course of two weeks he went home. Since then have not heard from him.

NOTE.—This was a minister who had come a long distance to preach in a church that he had built thirty-five years previous. He preached on the Sabbath, and paralysis occurred early next morning, preventing him from the pleasure he had anticipated in visiting his old parishioners, and encourage them to repair and improve their church.

No. 7.—Mr. F., completely paralyzed from the navel, lower portion of abdomen, and both legs ; could not move even a toe for the past nineteen months. Gave Treatment No. 2, diagnosing the cause thoroughly, finding the local cause. We gave thorough local treatment over the lower portion of the spine and groin.

The abdomen being badly congested,* we made a strong supporter and arranged to lift him by a tackle, thus supporting him, and giving him thorough local treatment from the groin down, placing his feet in a warm electro foot-bath; continuing this for ten or twelve treatments, he could lift either foot from the floor. We gave six or eight more treatments in the same manner every other day. In all eighteen treatments were given, of at least one hour each, which enabled him to use his body and limbs very satisfactorily, being as well as we had any reason to expect.

NOTE.—Not being able to continue the treatment, we instructed the family how to do so. Calling upon him six months later, found him able to walk with a cane and attend to his business (portrait painter). His attending physician predicted that he would never walk again; that it was a softening of the brain and spine. The diagnosis proved that the mistake would not have been made if he had been conversant with an intelligent electrical diagnosis, by which the cause was found to be a nervous muscular difficulty, principally produced by congestion.

No. 8.—Mrs. O., afflicted for many years with several difficulties—palpitation of the heart, causing blindness at times, chronic diarrhœa, scalding of urine,

* The abdomen felt like a piece of India rubber, about one inch thick, and when being raised to a sitting position in bed, by means of a line, would press him back, offering great resistance; and to let go of the line attached to the foot-board would throw him back violently. This all disappeared under the treatment, seeming to break up in patches as that condition passed off.

nervousness, chronic headache, sore throat, cough, inflammation of the bladder, ulceration of the rectum and anus, congestion and ulceration of the uretus, with inflammation, retroversion, unable to walk much, no appetite, with frequent vomiting. Gave Treatment No. 2; then changing negative to the vagina, gave local treatment, commencing at the lower part of the abdomen, over the ovaries, breast, throat, over and around the heart, with very light and gentle current; then over the spinal cord, the back of the neck, over the base of the brain; changing the negative to the back of the crown of the head, electrized around the ball and socket of the eye with a gentle current; the positive electrode was then placed at the anus, while the negative was placed above on the spinal column. After which the negative was attached to a vaginal electrode, and another electrization was given over the abdomen, especially the bladder; then changing the negative to the catheter it was inserted into the bladder through the urethra, and electrization given over the abdomen, bladder and lower portion of spinal column. This long treatment was continued daily for about two months. The results were gratifying, and she gave daily testimony that electrical treatment was superior to any before tried, as it dispelled most of her difficulties, when an accident occurred, from the escape of gas, and the case passed into other hands.

NOTE.—This was a very interesting case, and required a variety of changes in the local treatment, which we have endeavored to express as clearly as possible. The results were very satisfactory and gratifying to herself and friends, and to us as a professional achievement.

No. 9.—Mrs. D. had general paralysis of the muscular and nervous system; could scarcely sit or hold her head up, capable of but little motion of hands, feet, or any portion of the body, poor appetite, with dyspepsia.

Gave Treatment No. 2; then changing negative to the base of the spine, gave local electrization over the spine, especially the lower portion; particular attention was given to the back of the neck, dampening the hair at base of brain, sometimes changing the negative from the feet, and allowing her to sit upon it, when the current was too strong for the feet to be pleasant. These treatments continued only twice per week for three months; during this time her appetite became good, the dyspepsia was removed, and she commenced walking, and went about the house, up and down stairs, when the treatment was suspended for a month or two. In the meantime she improved considerably. Then the treatment was resumed as formerly, twice a week. She improved very satisfactorily for the number of treatments received. She regained her health comfortably, but not entirely.

NOTE.—This was a case that was treated by those who professed to know nothing of the efficacy of administering electrical treatment.

Our experience before and since would suggest daily treatment for the first two or three weeks, then less, as the case could afford. In this manner the results would have been accomplished in half or one fourth of the time.

No. 10.—Mrs. B., paralysis; incapable of motion

from the navel down, scarcely any feeling in her limbs; the feet were swollen, congested and inflamed, and very painful most of the time. The ankles were so weak that when any weight came upon them they turned under. She had been in this condition two and a half years; could not sit up, had full use of body to the navel, also the arms, while the abdomen and lower limbs were powerless to move. She was very lame across the small of the back. Gave Treatment No. 2. An electrical diagnosis discovered the cause to be a uterine difficulty. We applied an abdominal supporter and uterine electrode, making the supporter sufficiently strong and lenient to raise the patient with a tackle. (See under abdominal supporter.) To this we added two strong bands, two inches wide, and of sufficient length to hook above the head; then used a strong walnut stick, to which we fastened the tackle block, which was also fastened with a bolt to the ceiling; by this she was raised to her feet. Since she could not stand over a quarter of a minute, it increased the ability to do so by treating all the muscles in the feet and lower limbs. This treatment was continued for three months, twice a week. At the expiration of this time she could walk by taking a person's arm.

This case was out of the city, and it was impossible to give it the attention it required, or the recovery would have been much more speedy. Our mode of treating uterine difficulties was the same as recommended in chapter on womb difficulties, with abdominal supporter and uterine electrode. (See chapter.)

No. 11.—Mr. C.; aged 73, could not walk or even stand a moment; had been failing for ten years. When we first saw him he was unable to turn himself in bed; was paralyzed in the lower limbs, including the abdomen. Had no control over his bowels; had to be lifted in every position. No power above the abdomen. Gave him Treatment No. 3; then locally, beginning at the feet, and then thoroughly manipulated every muscle and nerve up, including the abdomen. When we commenced his weakness was on one side of the small of the back. After a few treatments as above, it changed to the opposite side, but was soon removed from there by treatment as stated. We attended him through May—in all, twelve electrical treatments, which enabled him to control himself, and he went about the house comfortably with a cane.

NOTE.—This was a good, firmly built, well-proportioned gentleman, with a good constitution. The treatment was administered while visiting at Stamford, Conn. We left when he became able to walk. He continued to improve so much that in a few weeks he married.

No. 12.—Mr. H., aged 60, had a stroke of paralysis three years previous to our professional services. His head was affected, memory impaired, was very lame; it was with great difficulty that he could bear his weight upon his feet.

We gave him Treatment No. 2, and a thorough local treatment all over the left side, changing the negative to the left foot. We then treated the head and forehead, gently increasing the current as he

could comfortably bear it. The feet were treated separately to reduce the inflammation. These treatments usually involved about three-fourths of an hour.

NOTE.—This was a stubborn case, as it proceeded from a cerebral affection, although in the course of two weeks' electrical treatment he was enabled to walk without his cane, and his feet had become so well that he had forgotten that they had been affected. He procured a generator, and, with due instructions, his wife continued the treatment. When last heard from he was slowly improving.

In the treatment of these cases, it should be borne in mind that very speedy favorable results need not be expected; it is a work of time.

When an arm or leg is paralyzed, and the patient is not able to move a muscle for several days after the stroke, it is ominous of a protracted difficulty; and if electricity is properly administered, according to the instructions found in the cases herein cited, and it fails to give relief, nothing else will do it; hence being tortured with blistering, leeching, etc., will be of no avail.

PILES.

No. 1.—Mr. W. had suffered for several years with a constant irritation at the anus, and a burning at the rectum, with occasional paroxysms of external suffering; otherwise he was a strong, healthy man. We gave General Treatment No. 3, then inserted a rectum electrode, and treated thoroughly over the spine, especially the lower part. This local treatment was continued at irregular periods for three months, in all twenty-five treatments, when the difficulty subsided.

NOTE.—This was a very vigorous, healthy man; here local treatment could be given with impunity without general treatment.

No. 2.—Mrs. L., after confinement, experienced great distress at rectum and anus, with prostration and great inflammation; and, as the patient remarked, “It felt raw and extremely sensitive, with very acute pain, and a sense of bearing down within the rectum.” Gave Treatment No. 2 very carefully, then locally by putting a reversible electrode upon the negative conductor, and, with the left hand, placed it at the spine, three inches above the base, then holding the positive in the same hand as the negative, with the right hand placed a warm damp sponge at the anus, and pressed it up, gently at first, but gradually increasing while the current was agreeable to the patient.

NOTE.—A continuance of this treatment daily, for three months, removed the difficulty. When we last saw her she was on board a steamer bound for Europe, feeling as well as ever, and expressing gratitude for the benefit of electrical treatment.

No. 3.—Mr. McS., with protruding piles. When called we found the patient in a helpless condition, with a protrusion equal to the size of a large coffee cup, of very dark color, with inflammation. Gave Treatment No. 2. Then changing the negative electrode to the back of the neck, held the positive in the left hand, and used with the right hand a common sized sponge, wet in warm water, which we applied to the affected part, and gently pressed in the outside, at the same time bearing down gently toward the anus. After a half hour's treatment the

parts assumed a normal condition, allowing him the same day to proceed on a journey.

NOTE.—This was a very bad case, but yielded to our treatment very satisfactorily, and great gratitude was expressed by all the friends. Before the electrical treatment they expected (stopping at the Astor House, New York,) to be detained a week or two at least.

No. 4.—Mr. S. was in great distress with some protrusion and congestion, with high inflammation.

Gave him Treatment No. 3, then put the negative to the back of the neck, and wetting the positive sponge in water as warm as the patient could bear, we pressed it upon the affected part gently, with a good strong current; the protrusion was very soon reduced, and congestion and inflammation subdued, which gave him great relief.

NOTE.—This gentleman, being a pianist, performed the same evening without difficulty. In these cases we have shown how easily this complaint, in its various phases, is cured by electrical treatment.

CHAPTER X.

PLEURISY.

No. 1.—Miss S. This case was exceedingly severe. Inflammation in the left side, with great difficulty of breathing, so that she had not been able to take a long breath for several hours.

We gave Treatment No. 6 thoroughly, and before local treatment was commenced she found great relief; could take a long breath. The negative electrode was changed to the lower end of the spine, taking care to wipe the feet dry. Then we manipulated thoroughly over the affected parts, abdomen, ovaries, stomach, again over the back, and especially the spine, covering the affected part with the hand, letting it remain five minutes, with as strong a current as the patient comfortably could bear. At the expiration of about three-fourths of an hour she breathed as well as ever, and felt no more pain.

NOTE.—This was a severe, acute case of high inflammation, accompanied with considerable fever. The electrical treatment removed the congestion which is always present in such cases. She required no further treatment.

No. 2.—Miss P. This was a case of chronic inflammation of the pleura in the left side. She had

scarcely been free from pain for two or three years. There was much heat, caused by congestion.

We gave her Treatment No. 6, alternating with No. 2. Having given thorough general treatment, we changed the negative electrode to the lower end of the spinal column, then manipulated thoroughly the parts affected, the liver, stomach and abdomen, terminating in a current down the left side.

NOTE.—This was a case where other difficulties were apparent, but the above was the special treatment used for the inflammation of the pleura, which was a very prominent and sore affliction to her. She received three treatments a week for a little over two months, when she was cured, and still remains well, having previously been a stranger to good health.

QUINSY.

No. 1.—Mr. A. The throat of this patient was nearly closed, and it was with great difficulty that he could breathe, which difficulty had just been increased by an application of nitrate of silver by his family physician. There being no time to lose, the patient's apparel was removed to enable him to sit upon the negative electrode for General Treatment No. 6, after which we took a small round sponge electrode and applied it directly to the swollen glands in the throat, then manipulated with the hand over the back of the neck, lower brain, and around the whole neck, moving the negative electrode over the part affected. At the completion of the treatment the swelling and soreness had nearly subsided, so that he was enabled to eat and drink with comfort, and with a relish

which he had not had for several days. The next morning the patient resumed his business.

No. 2.—Mr. I. This case had more the appearance of a putrid sore throat, which was very highly inflamed, and appeared nearly black. Articulation was almost impossible. After examination, the patient sat upon the negative electrode and Treatment No. 6 was applied, after which we used a round sponge electrode, about the size of an ounce bullet; this the patient held at the part affected, while we manipulated the back of the neck, cerebellum or lower brain, on the sides of, and especially the front of the neck.

This treatment was given in the evening, and the next morning he was enabled to resume his business.

He had been in agony for several days previous to our being sent for.

No. 3.—Mr. P. This patient had suffered for six days previous to our notice. The throat was full almost to suffocation; indeed, in his agonizing efforts to obtain breath, he would roll off his couch, opening his mouth wide, and fly around the room, only ceasing when exhaustion or prostration took place. We placed his feet in a pail of hot water, in which we put the negative electrode, and gave him Treatment No. 6. Then placed a round negative electrode sponge directly upon the part affected, the patient putting it as far down the throat as possible, and over the congested portion, while we manipu-

lated over the back of the neck, both sides of it, and especially the front, high up under the chin. We continued this local treatment for some time, which proved the most effective. After twenty minutes he spoke freely, and called for a goblet of milk. At dinner he was able to satisfy his appetite, and had no occasion for further electrical treatment.

The result thus satisfactorily produced was by the small electrode being placed directly to the congested parts, the electric current opening the course of circulation. This removed the congestion and inflammation, and the work was completed.

No. 4.—Mrs. B. This patient was subject to gatherings in the throat, and frequently from a common quinsy it would assume a putrid form, with copious discharges of a very offensive nature. With her feet in warm water, we gave Treatment No. 6, after a thorough electrization. We made internal applications on all parts that could be reached with a negative sponge electrode, and gave a thorough manipulation over the neck and upper portion of body, both back and front, until the swelling subsided and inflammation was removed. The time required was about three-fourths of an hour.

NOTE.—This person, with the assistance of the generator, takes care of herself, and prevents any serious difficulty with the throat, or any part of the system, by giving herself treatment. When any symptoms arise, she uses the above stated manipulations, and all continues right.

RHEUMATISM (INFLAMMATORY).

No. 1.—Mr. B. When first called to administer electrical treatment to this patient, we found him unable to move a muscle, suffering excruciating pain in his lower limbs to the extremity of the toes, some portions of which were more acutely sensitive than others, particularly just below the knee in front, and the ball of second toe; all very sensitive to the slightest touch; the abdomen was particularly so, but with no pain. The knee, lower legs and feet were very highly inflamed, causing much heat.

We gave Treatment No. 2 thoroughly, then gave local treatment, searching out the tender points by electricity. The point under the knee, in front, was very stubborn, and at first seemed unyielding, but soon succumbed to the local treatment. Again, that acute, cutting sensation nearly to the ball of the foot, back of the second toe, was intensely sensitive to the slightest touch. Three of these electrical treatments, in as many days, enabled him to walk about the room. These treatments were continued three times per week for three weeks, when the difficulty was removed, enabling him to perform a journey. Each of these treatments took a full hour.

NOTE.—This case was treated while I was fulfilling an engagement, where I could attend Saturday, Sunday and Monday of each week. Could the case have had this electrical treatment daily, he would have improved faster and recovered much sooner. This was an old chronic difficulty of years' standing, assuming this acute form during the vernal season.

A year or more after, we met him, and he remarked "that it

seemed almost a miracle (alluding to the above) that the electrical treatment had accomplished so much for him." He was having rheumatism in one arm, so that he could not raise it to his head. We were invited to dine with him, after which we gave him a No. 2 Treatment, and locally over the shoulder; it subsided at once; he could use the arm and shoulder without any difficulty.

No. 2.—Rev. Mr. L., aged 39. This was a case of terrible suffering in the knees, the foot, shoulder, elbow, wrist, hand and fingers, which were all inflamed and lame at once; some places more severe than the others could not bear to be touched unless electricity was in the hand, as to move an arm or limb in the slightest degree produced great pain and suffering.

We gave Treatment No. 2, and locally over the parts affected. This would quiet the pain for a time, but it would persist in returning, when we placed the electrode in the left hand, the current passing from thence to the elbow and shoulder, extending to the other shoulder, and from thence down to the hip, knee and foot. We tied the negative sponge electrode on the great toe and other toes, as far as it would cover, and passed the electrical current as strong as was comfortable; this relieved the patient through the night, and the next day the foot and toe were much better, as well as the joints.

The generator was used whenever there were any symptoms of returning pains. It always gave relief and removed congestion, and enabled nature to assume a healthy condition. This mode of treatment

in the course of two weeks enabled the patient to resume his pastoral duties.

NOTE.—These electrical treatments occupy nearly, and sometimes more than, an hour. The muscles must all be thoroughly electrified, each one by one, and if persevered in will surely give permanent relief; and should it approach the heart it can be treated there in the same manner, eventually driving it from the system.

No. 3.—Mrs. L. This was a case in the incipient stages of rheumatism. It was very painful, and all parts of the body seemed implicated. There was great heat about the abdomen and between the shoulders; the hip suffered much, and there was much heat about the head. Two of General Treatments No. 1, applied thoroughly over the parts affected, served to cure her difficulty.

No. 4.—Mrs. Y. This was a case similar to No. 2. When called she had been suffering for several days with very severe pain in her wrists and knees, which was very acute; sometimes in one knee more severely than in the other, and again all suffered together. We were sent for when she was in a paroxysm of pain in the left wrist, elbow, and in the right shoulder, hip, knee and great toe, which was so intense that she was unable to take a long breath.

There was severe congestion, and every portion of the body was extremely sensitive to the touch. The cords upon the under side of the legs, extending

from the heel to the pelvis, were contracted, which was a source of great trouble to her.

The right leg was most affected, consequently we put the negative electrode sponge under the right heel, then grasping the left wrist, the pain subsided in the wrist, elbow and shoulders, the current crossing to the other shoulder, hip, knee and great toe ; this enabled her to take a long breath. Continued Treatment No. 2, and then manipulated the best we could over the particular parts affected until all was quiet. We then tied the positive upon the left hand, and let the current run through the right, and the next morning she was very comfortable, all difficulty having been subdued. We continued to treat her morning and evening, putting the electrodes at night just where we could allay the most pain.

It will be observed that the more of the affected parts which can be reached between the two electrodes the more can be accomplished, as in this case; the wrist, elbow and shoulder of the left arm, crossing over to the right shoulder, hip, knee and great toe, were all affected at once by the current in its passage between the two electrodes. The patient fully recovered in five days.

No. 5.—Miss D. This patient was taken with acute pain in the great toe, which had continued for several days; was told that she might be obliged to have her toe amputated. We treated the patient once, when she was told that electricity was

injurious, and our services were dispensed with ; but after eight or ten weeks of great suffering we were called again ; found her in a low, feeble condition, with a spinal difficulty. Gave her General Treatment No. 2 very carefully, then local, by putting the negative electrode upon the toes, especially the great one, and manipulating thoroughly over the foot, ankle and legs to her hip, and from thence up the spinal column ; gave great attention to the small of the back and over sciatic nerve, just back of the hips. Two of these treatments gave her the ability to walk and perform a journey. She is now entirely well.

NOTE 1.—This affection came entirely from the spinal or sympathetic nerve, the negative electrode being fastened to the end of the toes, mostly on the great one, by which the inflammation was removed and health restored.

NOTE 2.—One of the above electrical treatments was on Tuesday, the other on Friday. Previous to this, in a delay of ten weeks, she had endured excruciating pain under her family physician's care, and finally the treatments were insisted upon by the mother, who was then availing herself of the benefit of our mode of practice.

RHEUMATIC GOUT.

No. 1.—Mr. L. had severe pain and inflammation in his limbs and feet, as well as through the system. The feet and limbs were much swollen, all of which made him very nervous and irritable.

Gave Treatment No. 2, and continuing the negative electrode at his feet, gave local treatment over all the parts affected. Fifteen treatments cured him, taking them three times per week.

P. S.—He was a German, had been in this country twenty-five years, and had not been entirely free from this difficulty a day since he had been in America. He expressed all the gratitude he could find language for.

No. 2.—Mr. B., aged 40, taken with terrible pain in the great toe, extending over most of the foot, but more particularly in the great toe. Could not stand or bear the foot to touch the floor. We put the negative electrode under the opposite foot, and with a careful touch and a strong current manipulated the painful foot, over the toes more particularly. We then got a gentle but firm gripe of all the toes, letting the palm of the hand rest against the ball of the toes, holding it firm and still until the pain subsided, which enabled us to handle his foot with impunity with the electrical current; the swelling was reduced, pain subsided, and he called his foot as well as the other—all being accomplished within three-fourths of an hour.

NOTE.—This was a gentleman from the Russian Baths, corner of Thirteenth street. Having retired from the vapor room, he was not able to have his clothes on, when we were called and thus found him. The result of the treatment is given above. About twenty-five gentlemen witnessed the operation.

No. 3.—Mr. R., aged 45, was in great pain, being brought in a carriage to our rooms. This difficulty was all through the foot, but more severely in the

toes. The foot was very much swollen, congested and inflamed. We gave thorough treatment one hour and a quarter, with some relief; he then went to his residence and retired to his bed. We then put the negative under the heel, and placed the positive in a wet cloth tied around the toes; thus the current run through the foot and quieted the pain. Continued this most of the afternoon; this enabled him to obtain some sleep, which he had not enjoyed for the three previous days. He entirely recovered in a short time.

NOTE.—These two cases, being similar, were treated in the same manner. A physician standing by, who had never witnessed the effects of electricity before, remarked that he should use two generators, if he had them, as they operated so kindly. We have known cases like these to confine persons for three or four months that might have been cured in a week with electricity applied as above stated.

No. 4.—Mr. B., aged 55. Case of several years standing; more severe in the vernal season, confining him for three and four months, much of the time in a helpless condition. It was in this state that we found him.

We gave Treatment No. 2, then a local treatment by placing the negative under one foot, holding the same in a chair. We found the knee exceedingly sensitive, especially just below the knee-pan, also the ball of the second toe; the feet and limbs were swollen and much inflamed, rendering him unable to move at all. After treating one leg we changed the

negative to the other, and proceeded in the same manner, finding the two tenderest spots to be in the same place on each leg.

NOTE.—Three treatments in three days enabled him to walk about the house, and at the end of three weeks longer, during which time he received three treatments per week, he accompanied his family on a journey, feeling very comfortable.

A year or two after this we met and found him troubled with a partial paralysis of the arm. "Come," said he, "you performed a miracle on me once; now come and take dinner with me, and see what you can do for this arm."

We went, and placing the negative in the hand of the lame arm, commenced at the hand and gave the whole arm a thorough treatment. In half an hour he was able to use his arm freely, which he had not been able to do in five weeks before.

No. 5.—Mr. L., aged 40. A very severe case of rheumatic gout. The pain in the knee, foot, shoulder, wrist and thigh was very intense, changing from one locality to another, all the limbs seeming to be in a congested condition, causing acute inflammation.

We gave Treatment No. 2, and then a local treatment wherever the pain existed, putting the electrode to the extremity of the hand or foot that we were treating. This was done very delicately, as neither hand nor foot could be moved, except with the most extreme care. Having finished the treatment as above, and in order that the patient might obtain some sleep, the electrodes were so placed that the current would run through the parts most affected; for instance, the left hand, wrist, elbow and shoulder, crossing over to

the opposite shoulder, down to the hip and knee to the foot. This gave a long line of affected parts that otherwise would allow no rest. The positive was fastened on the left hand and the negative on the right foot, including the great toe; a strong current was passed through all night. For nine days we treated him twice a day, taking about an hour each time.

He received about forty treatments in the course of six weeks, when he was well again.

NOTE.—Many predicted the approach of the difficulty to the heart. Dungleason speaks of this danger in other modes of treatment, but we never had an occurrence of the kind, for the very good reason that we protect the heart from attacks, and the electrical current applied just above the heart, while sitting on the negative, has always relieved that organ from any difficulty of the kind.

CHAPTER XI.

SCIATICA.

No. 1.—Mr. S. had been troubled for a long time with pain in both hips and down the limbs, at times very severe, which affected his whole nervous system. Administered Treatment No. 2, then locally over the affected part until the pain subsided, much to his gratification.

No. 2.—This was a paralysis of the sciatic nerve; the patient was unable to walk or stand. The difficulty seemed more particularly located in the right thigh and knee; very severe and persistent, as well as painful. It required over two months to obviate the difficulty. This was my own case, which first created an interest in electricity as a therapeutic agent.

The electrical apparatus was very crude and unmanageable, with a coarse, ragged current; and this, together with a lack or want of professional knowledge in this science, greatly added to the trouble and time in subduing the complaint. Through this agency I was cured, and by this my confidence was strengthened in it as a curative agent. There was no par-

ticular system or knowledge, as far as I could learn, upon the subject at that time.

No. 3.—Mr. S. This was a case of ten or twelve years' standing. It was very troublesome at times, seldom permitting him to walk.

He commenced to take Treatment No. 2 thoroughly, then locally by placing the negative electrode under the heel of the right leg, and applying a strong current upon the right hip and leg; after this we tied the negative on his foot, and applied the positive electrode on back part of hip, and let the current run for an hour or two, just as it was agreeable to him.

It was continued for two or three weeks, but did not produce the results we expected, although the patient was very much benefited. A longer period of time might have brought permanent relief.

No. 4.—Dr. M., a physician who came for treatment. The affected parts were covered with plasters; we requested them to be removed. Next day received Treatment No. 3, then a thorough local treatment over the small of the back, hips and down the sciatic nerve. He received about three treatments, and required no further attention.

NOTE.—There was nothing remarkable in this case, and it is only mentioned to give our mode of treatment while fulfilling a professional engagement at New Haven, Conn., a few years since.

No. 5.—Mr. G., a gentleman with hemiplegia or paralysis in one side; both sciatic nerves on each limb were severely implicated, causing much pain. While treating the general difficulty, which will appear under head of paralysis, we treated locally with the negative electrode on the same leg that we electrized; then down each leg repeatedly, passing the negative to the other when it was treated, as an upward current always produced an uneasy, painful effect.

Hence the negative electrode should be under the same heel of the leg we are treating; this is always right, but may in some instances be changed with impunity.

No. 6.—Mrs. P., a lady who had endured unspeakable suffering most of the time for eight years. When she came under our treatment the pain was mostly in her foot. Gave her Treatment No. 6 and a thorough local one with the negative electrode tied on the toes, so that the entire foot could have the benefit of the treatment. A daily continuance of this produced a decided improvement in two weeks, when we gave only three. With three per week she was cured in less than sixty days.

NOTE.—A great amount of money* had been spent in vain for her relief. She was often compelled to have her foot in ice

* Her husband had, previous to this, expended three thousand dollars without any permanent benefit.

water to find any relief during some of her paroxysms of pain. The cure was appreciated by herself and a large circle of friends.

SEA-SICKNESS, ITS CAUSE AND PREVENTION.

A child when rocked in its cradle soon goes to sleep, but there are many who stand ready to testify that being "rocked in the cradle of the deep" produces anything but a similar result, and we are led to inquire why it is that the motion being very similar in each case, the effect is so different.

We have been led to the conclusion that in the case of the child there is both an absence of fear and any attempt to resist the motion imparted by the rocking of the cradle, while those on shipboard who become sick, not only have a sense of fear, but, in endeavoring to resist the motion of the vessel, strain the pneumogastric nerves between the neck and stomach; and when the strain is at all relaxed, sickness is the certain result, lasting while the motion continues, and often longer. In order to obviate all this, it would be well to imitate the action of the child—when the motion of the vessel is uncomfortable, retire to your room, and, lying on your back, become perfectly passive to the movement of the vessel. If anything is to be taken, pure water and simple diet is a rule you can hardly afford to violate. Remain so until the storm and rolling of the vessel have ceased, when you will find that you have escaped the dreadful suffering which others have endured who have neglected this precaution. In the year 1868 we had a patient whom we had brought up from a very

low nervous condition; and becoming able to travel, he desired to go to Europe, but had a great dread of sea-sickness. As we had made arrangements to cross the Atlantic at about the same time, we assured him that he need have no fears if he would go with us and heed our advice. He promised to do so, and, together with his wife, we took passage on the steamship Cuba. All went well until the fourth day out, at about four o'clock P. M. we encountered a violent storm. Being previously warned by the barometer, we retired to our respective berths, lying flat on our backs and becoming passive to the action of the vessel. The storm increased till the floor stood at an angle of forty-five degrees.

The next morning on meeting the cabin maid, we inquired how the passengers had stood it. "Stood it," she replied. "All the ladies sick and on their knees praying, while you and your party were lying on your backs snoring—a pretty contrast it was, surely."

We will add one more illustration of this mode of preventing sea-sickness.

On our return home from Paris, we had tickets to London *via* Folkestone, and as they were equally good to Calais, we took the cars for that place. On our arrival we found a large number of passengers who were waiting for the abatement of a violent storm, in order that they might cross the straits. The sea having in a measure quieted down, it was decided to send out a steamer, on board of which we all crowded.

While on the train from Paris we had the honor of

being introduced to Hon. Mr. Saunders, M. P. ; and the violence of the storm being of course the absorbing topic, my new friend remarked that he was always doomed to excruciating suffering from sea-sickness ; that he had just returned from a seven days' tour on the Mediterranean, but dreaded the channel from Calais to Dover more than all. We gave him the benefit of our experience, and told him that we would take the chances of his being sick if he would but heed our advice (which was as we have previously described). On our arrival at the steamer he met several of his acquaintances, to whom he related our conversation, and it was agreed by all to make the trial. They accordingly went below and laid down, and the steamer started. In a short time the passengers all about us were fearfully distressed with all the characteristics of sea-sickness, while our party were quiet and not in the least degree distressed. And when the boat reached the landing, all the ladies and gentlemen composing Mr. Saunders' party came to me, expressing their pleasure in having been exempted from the distressing sickness which had always afflicted them in crossing the straits of Dover.

Although the foregoing is in no way connected with the results of our electrical practice, yet we give it, in the hope that it may prove of value to those who may be in a situation when it can be made available.

SPINAL WEAKNESS.

No. 1.— Miss L., aged 23, suffered from great weakness of the spinal column, collateral curvature and

much pain in the lumbar region, head, forehead and neck. She was unable to raise herself to an erect posture.

Gave Treatment No. 2 very gently, in consequence of her extreme nervousness. Then changing the negative electrode to the base of spine, we gave a thorough treatment over the spinal column, especially and carefully manipulating the lumbar region or lower part, where she complained of much suffering. We also applied a compensator* until the electrization enabled the spinal column to assume a normal or healthy position. In four weeks of this course of treatment she was nearly well, with good appetite and healthy digestion.

No. 2.—Mrs. J. W. K., aged 50, suffered from extreme weakness of the spinal column, with inflammation at the base. This caused such intense suffering and nervousness that life was a burden. She was unable to lie down or sit without help, but was able to walk a little when raised to her feet.

Gave Treatment No. 2, then moved the negative to the base of the spine and gave thorough local treatment over the spinal column; this was continued fifteen or twenty minutes.

NOTE.—Eight of these treatments, in the course of about two months, entirely removed the difficulty.

* The compensator is described under the head of electrodes, etc.

SPRAINS AND WOUNDS.

No. 1.—Mr. R., aged 50, stepping on an orange peel, in the effort to save himself from falling (being a powerful man) he wrenched his body between the short ribs and pelvis, finally falling. He was conveyed to his residence in a helpless condition. We put the negative sponge in warm water, placed his feet in it and gave him Treatment No. 6 while sitting, we then changed the negative to the base of the spine, and gave thorough local treatment over the abdomen and stomach, then equally thoroughly with a strong current over the lower portion of the back, including the kidneys. The first and second of these treatments produced powerful evacuations, the third treatment he was able to walk about, and after the fifth he went about his business and required no further services.

NOTE.—According to our observation in sprains, in anything like the severity of this case, the patient would be laid up a long time under the old method of treatment, the whole viscera, as well as the spine, was affected, muscles congested and circulation impeded.

No. 2.—Miss G., aged 17, fell on the ice and sprained her thumb very badly. The accident occurred several months previous to our taking charge of the case. There was a swelling on the back of the thumb, which seemed callous.

Gave Treatment No. 2, and locally by placing the negative in the lame hand and manipulating over the

arm and shoulder; then tying the sponge around the thumb we treated the arm and base of the thumb, after which we changed the negative back to the hand and bent the thumb backward as far as the patient could bear, at the same time holding the positive in our other hand, so that a current of electricity passed through the thumb during this process. Twelve treatments, covering the space of one month, effected a perfect cure.

No. 3.—Master W., aged 15, was thrown from a horse, striking upon a fence-post, and from thence fell to the ground, nearly unconscious.

We were called but a few minutes after the occurrence, and found the patient in great agony. Over the middle ribs and right side there was much swelling and discoloration, and the pain was so intense that it was impossible to take a full breath. We put the negative sponge at base of the spine, same as in Treatment No. 3, and treated all over the body, then a local treatment over and above the parts affected.

In half an hour the swelling had subsided, discoloration nearly all disappeared, and the patient declared himself "all right."

NOTE.—His father remarked when we came that the usefulness of his son was gone for that season, if in fact it did not kill him. After the treatment the boy went to the barn, harnessed the horse and went with me to visit patients the balance of the afternoon and evening. At 10 o'clock P. M. gave him treatment No. 2, fearing he might have taken some cold.

The next morning he went about his business the same as if the occurrence had not taken place.

No. 4.—Rev. Mr. C., aged 70. A few weeks previous to our seeing this patient he had received a severe injury to his arm and shoulder, caused by being knocked down by a carriage wheel.

When we called we found him unable to move the arm a particle; it was very much discolored and painful.

Gave him Treatment No. 2, then placing the negative in the lame hand, gave a thorough but gentle local treatment. When the current was too strong he held the sponge in both hands, locking the fingers.

Six or eight of these treatments restored the arm and shoulder to a normal condition.

NOTE.—This was a bad looking arm, and extremely sensitive, so that on a portion of it we placed a wet napkin, and treated through that.

No. 5.—Mrs. B., aged 45, while in bathing was knocked down by the surf and badly sprained as well as bruised.

We were summoned within three hours after the occurrence and found her in great distress and perfectly helpless.

Gave Treatment No. 2, and then changing the negative to the base of the spine, gave thorough treatment over the small of the back and all affected parts. This occupied one hour, at the end of which time she was enabled to get some sleep, and the next day was well as ever.

NOTE.—This occurred at Long Branch in 1868. Our having

been called in season gave us great advantage. And it will prove so in every case, for congestion and inflammation will invariably succumb to the electrical current.

No. 6.—Rev. Mr. L. had his forehead scraped and bruised quite badly by striking against a wall; it pained him severely and rendered him unfit for his duties. The wounds were badly inflamed and very sore. We held the positive over the wound five minutes while the negative was in the other hand; on removing it the pain, soreness and irritation that had afflicted him ceased entirely, and he had no further trouble, as it healed rapidly.

No. 7.—Mr. S., having accidentally sawed the end of his finger, thought little about it until the next morning, when it had become much congested, inflamed and painful.

We treated it by inserting it in the positive sponge electrode, while the negative was held in the other hand. In a few minutes the congestion, inflammation and pain had all subsided, and he suffered no more with it.

NOTE.—This, although a slight wound, was very painful, and the relief which electricity gave was truly remarkable. The case is given to illustrate its efficacy in analogous cases, as well as the simplicity of administering it.

CHAPTER XII.

ST. VITUS' DANCE.

Miss P., a girl aged 14, was subject to frightful contortions, her face flushed on account of rush of blood to the head; very feverish during the paroxysm; had never menstruated. We applied Treatment No. 2 thoroughly, then changed the negative electrode to the vagina, and manipulated thoroughly over the spinal column, abdomen and ovaries; this being repeated daily for three weeks, the patient recovered, menstruation commenced, the contortions ceased, and she resumed her school again.

No. 2.—Miss McC., a girl of 13; her nervous system was excited from suppression of the menses (she had never menstruated); had suffered for some time from nervous twitchings, especially in the head and arms.

We gave Treatment No. 2, then applying the negative sponge to the vagina, gave local treatment over the spinal column, especially from the kidneys to the extremity of the spine. This not eradicating the difficulty, we inserted a small vaginal electrode, observing the same general and local treatment as

previously, and soon a normal condition was restored and natural menstruation, after which she returned to school.

NOTE.—This is our mode of treating in most cases, at any season in life, where there is a suppression of the menses ; but it should not be used in the early stages of pregnancy, since during the first two months it might produce a miscarriage, while a kind, gentle Number 1 or 2 Treatment would prove a very great advantage in assisting nature, where there is a feeble nervous condition of the patient.

SUNSTROKE.

No. 1.—Mr. S. had just returned to the Continental Hotel at Long Branch, from New York City, in a prostrated, helpless condition, supposed to be the effects of sunstroke ; very hot and feverish, and the system in a congested condition.

We gave Treatment No. 2, and for local put the negative electrode at the base of the spine, and treated the abdomen, liver, stomach and neck. Then turning him on his right side, treated the back and over the base of the brain, which was very sensitive. This seemed to revive the patient more than any other part of the treatment, as a much stronger electrical current can be given than in any other part of the head, as high as the top of the ears. After treating the cerebellum thoroughly, we reduced the current, wet the hair, and smoothing it down, administered the current by stroking the head down from the crown each way, using the hand most of the time, the entire hand and fingers resting firmly upon the head. Here was the difficulty, and needed a

great deal of attention. Next morning he was better; fever subdued; congestion removed; feeling comfortable, but weak from the previous day's exhaustion. He resumed his business the day following.

NOTE.—This was in 1868, and the same week that one hundred and thirty were reported to have fallen in a day in New York City. He was delirious when we were called, and doubts were entertained of his recovery by all who witnessed the case.

TETANUS, OR LOCKJAW.

We have never had a case of this kind, but venture the opinion that electricity would do more to relax the nerves and muscles affected than anything else.

We should give General Treatment No. 2 thoroughly, and would then place the negative sponge electrode at base of the spine, and treat all the muscles and nerves in the face, back of the teeth, around and back of the ear, and at the socket of the jaw, with as strong a current as the patient could bear.

TYPHOID FEVER.

No. 1.—Mr. B. This gentleman had been sick two weeks when we were called. We found him in great distress with a paroxysm of coughing, which greatly agitated the whole system. Found congestion, inflammation and pneumonia of the left lung; head very painful, unable to sleep, and without any appetite. Gave him Treatment No. 6, then locally over the throat, lungs and especially the stomach and

abdomen; also the shoulders and spinal column, from the kidneys down.

This treatment took one hour. He experienced relief from the first ten minutes, and at the conclusion of the treatment the congestion and inflammation had subsided, after which he fell asleep and was comparatively comfortable through the night.

In the morning found him much better, with some appetite. Gave the same treatment as before, and continued it, with slight variations, in accordance with his feelings.

On the third day he went out, and continued to do so every day until the eighth; then resumed business, calling himself well.

NOTE.—This case came under our electrical treatment while stopping on a journey to visit some friends. He was in a very low condition. Just previous to this there had been a death by the same complaint (save the chronic pneumonia), and another neighbor at the time was very low (both had the same physician); the other continued on until the following Monday, and he died, and was buried the day we left. Our first visit to the patient was at nine o'clock Sabbath evening. We found him in the condition related. His physician was out of town, which rendered his condition a very critical one, and created great alarm among his friends.

No. 2.—Mr. R. This gentleman's age was sixty; found his system in a very congested condition, with high fever and great distress, in his back and head especially. Gave him Treatment No. 6, and again locally by placing the negative to the lower end of the spinal column (the patient sitting upon it), and

thoroughly manipulated over the back and abdomen, paying particular attention to all the parts affected. This occupied one hour and a quarter, when he felt relieved. Next day went out, and the following day he resumed his business, feeling, he remarked, "as well as he ever did."

NOTE.—This case was very severe. The wife and daughter had just recovered from a severe attack of the same complaint. He was terribly sensitive, and could not bear the weight of the clothes while lying in bed. He also had some rheumatism, all of which disappeared from one electrical treatment.

No. 3.—Mrs. S. This was a lady aged 87 years, with high fever and a severe attack of dysentery. She had been ill for a week, was in great pain over the abdomen, back and shoulders, with nausea at the stomach.

We gave Treatment No. 2, and continuing the negative electrode at the heel, gave local treatment over the parts most affected, which allayed the fever. In the course of an hour, her fever returning, we administered the same treatment for half an hour, when she was relieved. Called again at nine o'clock same evening, found her very quiet, and gave her another treatment of half an hour; next morning the fever and dysentery had subsided; gave another treatment; called again at three o'clock P. M., when she said she felt as well as ever, with good appetite, though weak and exhausted for want of nourishment and sleep. She required no further treatment.

NOTE.—This was considered a remarkable case for a lady so

advanced in years to recover so soon. She felt it was her last sickness; she was resigned, except that she could not bear the thought of dying away from home, being on a visit to her friends. She returned home the next day, delighted with the result of electrical treatment, the first she had ever received.

No. 4.—This gentleman had been sick a long time with fever, was unable to sit up, and reduced almost to a skeleton; had no appetite, could not sleep, and the slightest exertion caused pain throughout the system.

Gave him Treatment No. 2, and locally over the part most affected, without changing the negative electrode. The next day he was brought to our place, and the same treatment was continued each day for three days, when he went home in the horse-car, and came every day for two weeks, at the end of which time he had fully recovered.

NOTE.—This relieved him of a difficulty of twenty-five years' standing. He would have an inclination to urinate twenty times during the night, not being able to void but little at a time; but as soon as in bed and warm the inclination would return. This had been very severe for the past twenty years. This case will be noticed under head of incontinence of urine.

No. 5.—Mr. M. This case was of a gentleman aged 35. Very high fever, pain in the head, back and abdomen, and in a highly congested state. Had a serious illness two years previous, continuing two months. Had been confined to his bed two days

when we were called. Gave him Treatment No. 2, then placing the negative electrode at the base of the spine, gave local treatment thoroughly over the back, and a mild, gentle treatment over the head, which greatly relieved him, and he remarked "that he felt like a new man."

The next morning gave him the same treatment as the previous evening, requesting him to remain quiet that day, and from that time he called himself well.

NOTE.—When called to this case we were on a journey, and expected to stay only one night. We declined on this account, no one being there to administer electrical treatment, and the prospect was a protracted course of fever, in which we might be censured for administering electrical treatment. But no other physician was called, and the results were as above stated, he expressing both surprise and satisfaction at being so quickly relieved.

URETHRA, INFLAMMATION OF.

No. 1.—Mrs. M., aged 33. This was a case of severe congestion and tenderness of the parts, with inflammation of the bladder; urination was so painful that a catheter had to be used.

Previous to drawing the urine we gave Treatment No. 2, and then inserting a catheter electrode, we attached it to the negative (thus electrifying the water in the bladder), and manipulated over the abdomen and back, which reduced the inflammation in the bladder. The current was then passed through the urethra by treating with the finger all around the entrance. The first treatment gave great relief. In

the next treatment we injected into the bladder warm water sweetened with loaf sugar, which we found of great utility, as it distended the bladder, thus presenting more surface to the action of the electrized water.

We pursued the same course in this as the first treatment, and then allowed the water to pass off. The urine being thus diluted, saved the patient much of the torture previously experienced. Two or three of these treatments sufficed to effect a cure.

No. 2.—Mrs. P., aged 47, was troubled with an unbearable itching at the urethra, and in attempting to allay the irritation by rubbing, the parts became exceedingly inflamed and sore.

She was brought to us the second day after the attack, when she remarked that it seemed as if she would become deranged.

We gave Treatment No. 2, and then placing a vaginal electrode at the uterus, manipulated over the parts until the external inflammation had subsided, whereby we were enabled to introduce in the bladder a catheter electrode attached to the negative, when we treated the parts, especially around the catheter, thus effectually electrizing the internal valve; we also manipulated the abdomen and back. This reduced the inflammation; then withdrawing the wire from the catheter, we allowed the water to pass off.

This one treatment was sufficient to remove the difficulty, and she had no recurrence of the attack.

Nos. 3 and 4.—Miss P. and Mrs. R. These cases were similar to the one before described, and were treated in the same manner, with the same results. There were other difficulties of a chronic character, but not so intense. This difficulty is generally present in cases of inflammation of the bladder. (See cases under this head.)

CONTRACTION OF THE UTERUS AFTER CONFINEMENT.

As far as our observations extend, there is nothing so efficacious in producing a contraction of the uterus after confinement as a general electrical treatment, followed by a localized electrization, which is done by placing the negative at the back, say between the lower edge of the shoulder blades, and then treating the parts over the abdomen, ovaries and stomach thoroughly. Then saturate the positive sponge electrode with warm water, and press it against the vagina and rectum.

NOTE.—During labor or confinement, place the negative at the several organs, and the positive above the natural pain in travail, and apply a current as strong as is comfortable for the patient. If the patient is too restless on the sponge, confine it in a bandage pinned around the body. This will greatly relieve her.

In addition to this, give local treatment all over the abdomen and stomach, still leaving the negative at the parts.

Every intelligent midwife will note the efficacy of this treatment in childbirth.

In the advance stage, the negative may be moved further toward the back.

GENITAL ORGANS OF THE FEMALE.

FIG. I.

1. One of the broad ligaments of the uterus.
2. Round ligaments.
3. Round ligaments, terminating in a pes anserinus.
4. Ovary and its ligament.
5. Fallopian tube, terminating in its funbriated extremity.
6. Body of the womb.
7. Neck.
8. Os Tincæ.

FIG. II.

1. Kidney.*
2. Womb divided in two lateral halves; the left half is here shown.
3. The supporting uterine electrode seen as sustaining the uterus in a normal position.
4. Rectum.
5. Vagina, in which is the stem of the uterine electrode, at the terminus of which is seen a portion of the abdominal supporter, with fastenings, and an electrical conductor with an insulated cover to move over the metal fastenings when the current is passing.
6. The bladder.
7. Urethra.
8. Clitoris.

* The position of the kidney is here shown for the reason that so many females, when they have a pain in the lower portion or small of the back, imagine that they have an affection of the kidneys, when in reality the trouble is not that organ, but more likely the effect of a uterine difficulty.

FIG. 1.

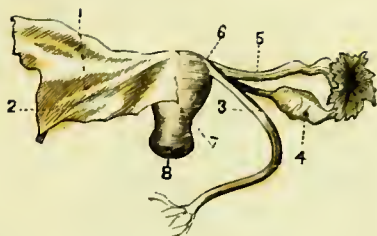
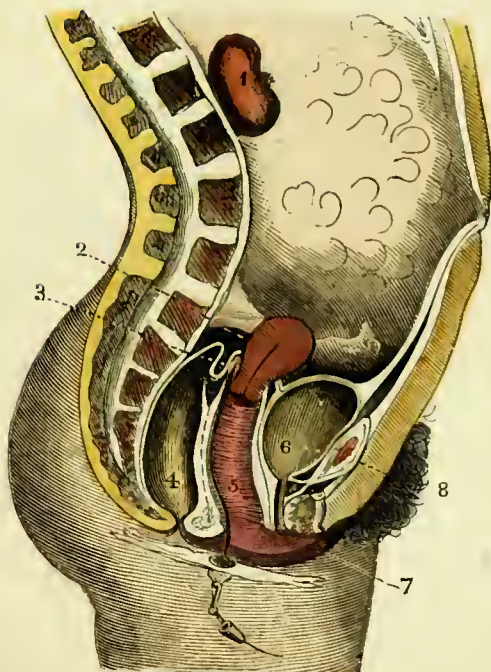
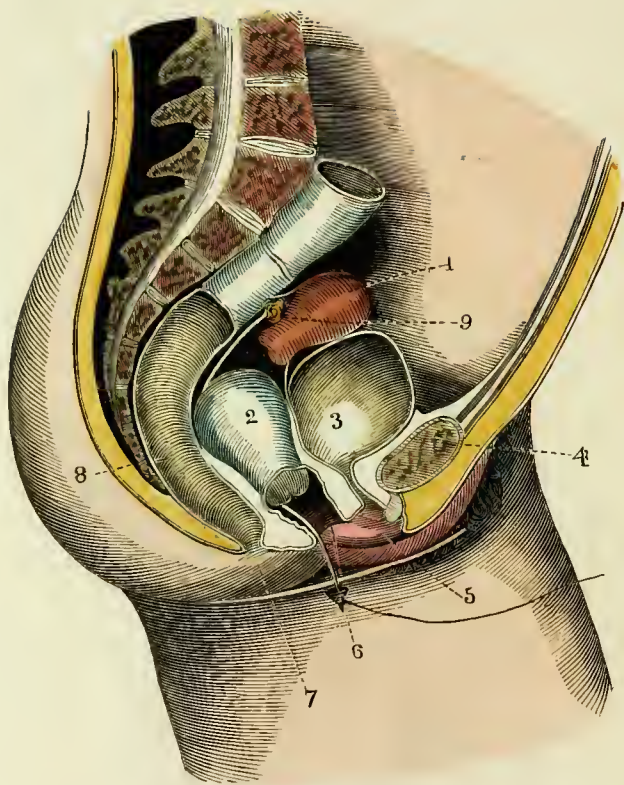


FIG. 2.



GENITAL ORGANS OF THE FEMALE.





PROLAPSUS UTERI, OR FALLING OF THE WOMB.

PROLAPSUS UTERI, OR FALLING OF THE WOMB.

DESCRIPTION OF PLATE.

1. The uterus supported by the uterine electrode after being raised to its normal position.
2. The uterus in a prolapsed condition, and enlarged by congestion and inflammation consequent upon displacement.
3. The bladder, distended and somewhat depressed.
4. The clitoris.
5. Urethra.
6. Vagina and terminus of the uterine electrode, with conductor attached.
7. Anus.
8. Rectum.
9. The supporting uterine electrode.

Prolapsus is a falling or depression of the womb below its natural position in the pelvis, varying in degree according to the extent of the displacement. In its normal position, the uterus rests upon the walls of the vagina, hence it cannot fall without descending into the vaginal canal, or pushing it along before it. The prolapsus may be caused by a relaxed vagina, or pressure of the viscera from above upon the uterus. It is not, however, the design of this work to discuss the various causes that produce this complaint, which of course involves the Fallopian tubes and ovaries, and drags them down with their surroundings. The uterine functions are usually not much interfered with; menstruation may regularly occur.

In brief, the patient complains of a sense of fullness, weight and bearing down in the pelvis, also a dragging from the loins; there is more or less pain or weakness in the back, usually extending around the groin. In slight cases there is not much trouble in walking, but in severe ones much distress is experienced either in walking or standing. There is also more or less difficulty in voiding the urine and feces, and in some cases the former can only be effected by lying down and returning the uterus, more or less, toward its natural position.

It often affects the appetite, there is a sinking sensation in the stomach, the bowels are inactive, spirits depressed, and there is a predisposition toward melancholy manifested.

Leucorrhœa is frequently an accompaniment, being an effect of the same cause which induced the prolapsus. Our method of treatment will be found recorded in the chapters which follow.

ANTEVERSION.

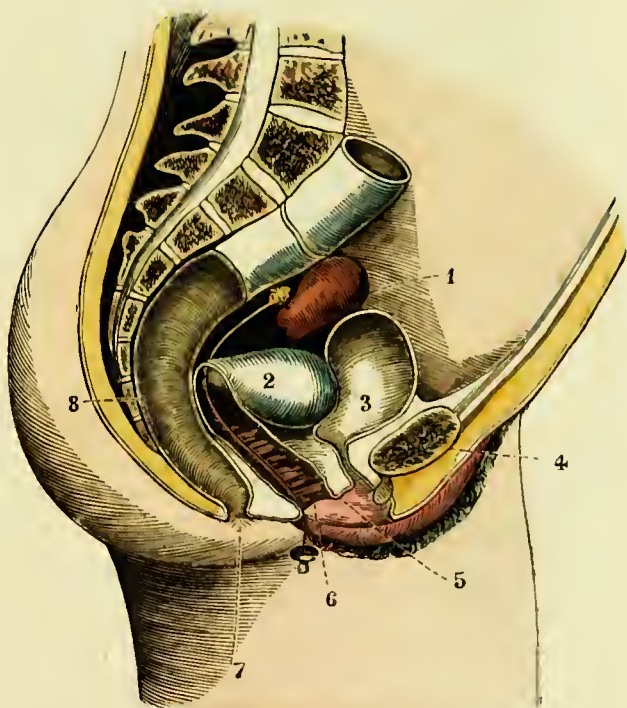
DESCRIPTION OF PLATE.

1. The uterus in its normal position.
2. Uterus anteverted, crowding upon the bladder and rectum.
3. The bladder.
4. Clitoris.
5. Urethra.
6. The vagina, into which is introduced the uterine electrode sustaining the uterus, the electrical current having reduced the enlargement seen at No. 2, and facilitating its being placed in its natural position.
7. Anus.
8. Rectum.

Anteversion may be in a more or less degree if the uterus is still lower down than shown at No. 2. If it presses still more against the bladder and rectum, it sometimes causes a flexion of the uterus. At this stage it often causes great trouble both in the bladder and rectum. The symptoms in this complaint are much the same as those in prolapsus.

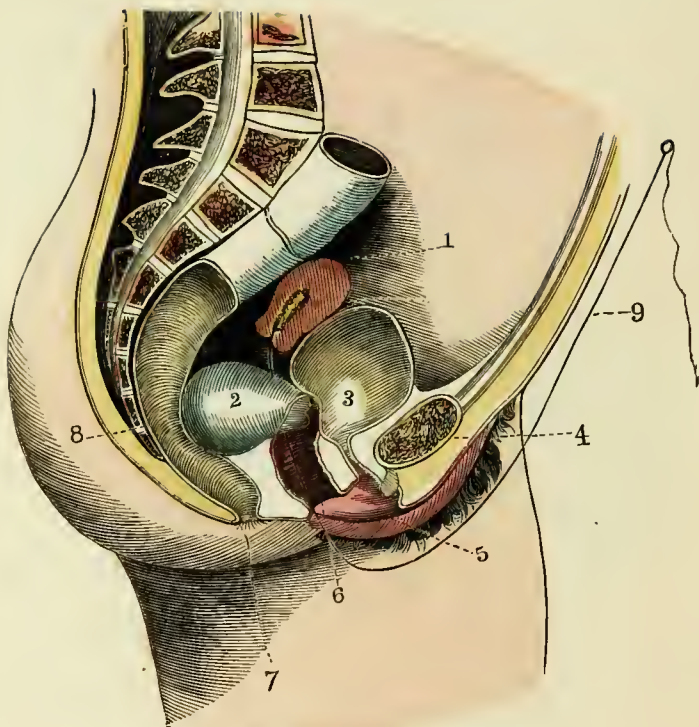
The replacement of the womb can best be effected when the patient lies on the back, and when the electrode is inserted; the treatment is the same as for any case of displacement, as there is more or less congestion, inflammation, and often ulceration to interfere with artificial supports usually employed.

This, in the first stages of treatment, is often very troublesome, the parts being so exceedingly tender the patient gets discouraged. We have always indulged them in a desire for the removal of the electrode whenever the irritation is very severe, for the action of the current eventually allays the irritation, and the patients then feel that they cannot afford to dispense with it. It is by this indulgence and perseverance that we have assisted nature in restoring the obliquity and producing a normal condition of all the parts affected.



ANTEVERSION.—SECOND DEGREE.





RETROVERSION.—SECOND DEGREE.

RETROVERSION.

DESCRIPTION OF PLATE.

1. Uterus in its natural position, it is shown as being divided; the left half is here presented with the intra uterine electrode inserted through the os into the cavity of the womb.

2. The uterus retroverted and pressing upon the rectum, the cervix crowding against the bladder.

3. The bladder, the lower part near the neck indented by the uterus.

4. Clitoris.

5. Urethra.

6. Vagina, into which is inserted the intra uterine electrode, extending into the cavity of the uterus.

7. Anus.

8. Rectum.

9. The intra uterine electrode, with conductor attached.

Retroversion of the uterus is the opposite of anteversion, the uterus having fallen upon the rectum, with the os against the bladder. In both of these complaints there are many degrees indicated, more or less, by the condition of the patient. In the latter the menses are more affected and irregular than in anteversion or prolapsus, and all the troublesome symptoms are aggravated at each menstrual period. The patient complains of a pain in the back and loins, which is aggravated by standing and walking; there is frequently a profuse leucorrhœa, a difficulty in voiding the feces, and a feeling as if it were impeded by some obstacle. The feeling of pressure or bearing down is increased the longer the difficulty continues, and sometimes the patient is confined to her bed, suffering a most miserable existence.

We have given these illustrations, showing the condition of the genital organs in a normal and abnormal condition, from the fact that in all the various cases of obliquity which have come under our notice, a profound ignorance has been expressed on the part of the patient as to the true condition of the parts, and we trust that in those we have given we have been enabled to make it plain to all.

CHAPTER XIII.

UTERINE OR WOMB DIFFICULTIES.

No. 1.—Mrs. H., aged 35, had suffered eleven years from female weakness, and was in a very feeble, emaciated condition, with falling of the womb, which protruded two inches. This was ulcerated, and there was much inflammation all throughout the genital regions. This was the principal cause of suffering, producing nausea, fainting, palpitation of the heart, violent headache, and severe and almost constant pain in the small of the back.

Gave Treatment No. 2 very kindly and gently at the first, but daily increasing the force of the current as she improved. There was, however, no very marked improvement till we applied a uterine electrode (which we had to do very carefully, in consequence of the condition of the organ), and kept it in position by an abdominal supporter, while we manipulated the surface of the abdomen, including viscera, stomach, liver, heart and lungs. As she was too feeble to sit up, we then had her turned on her side, and thoroughly electrized the spine and upward over the back and shoulders to the back of the brain. Replacing the patient on her back, we gave her a gentle, soothing treatment over the head and face, finishing

with a slight manipulation over the front of the body to the lower part of the abdomen.

NOTE.—This case required about an hour at each treatment. The first sign of improvement was in her appetite, and when that became good the recovery was rapid, so that in ten weeks she was enabled to be about and attend to her domestic duties. During the first month she received a daily treatment, the second month three times a week, and the remainder of the course twice a week; after which she required no further professional services, and is still, we believe, in good health.

No. 2.—Mrs. C., aged 60, had been an invalid for thirty-six years, twenty years of which she was strictly confined to her bed. We found her just able to recline in an easy chair.

Gave Treatment No. 2 with a very kind and gentle current, then thorough local treatment with negative vaginal electrode applied to the uterus. With a very light current, in consequence of her extreme sensitiveness, we manipulated the front of the person as before described, and then placing her on her side, we treated the spine and back, up to and including the back of the brain. Again placing her on her back, we gently electrized the head, forehead, face, neck and down to the lower part of the abdomen.

NOTE.—This case came under our care while on a visit to the town in which she resided. Though we could only give four treatments during our stay, she improved so much that she determined on being brought to New York under our care, and there remained six days. She returned home at the end of that time, and continued the treatment in accordance with our instructions during twelve months. In the course of that time we

gave her a few treatments and further instruction as we saw needful. She has now enjoyed vigorous health for upward of three years, and can do any requisite work with ease.

No. 3.—Miss M., aged 55, had suffered for thirty-six years. The diagnosis showed a prolapsus of the uterus, with chronic inflammation. The ulcers were very dark, hard and indurated, and considerably enlarged. She suffered from severe pain in the head and back a greater part of the time.

Gave Treatment No. 2, after which local treatment with uterine electrode, which drew the uterus into its natural position. We gently treated the abdomen, especially the ovaries, the stomach, liver, lungs, heart and neck; then holding her in a sitting position, we treated the spine, paying particular attention to the hips and lumbar region, and so upward to the shoulders, back of the neck and cerebellum, or little brain. She now resumed a reclining posture, when we gently treated the head, forehead and face downward to the lower part of the abdomen, carefully manipulating the ovaries and in front of the hip bone, which was peculiarly sensitive, in consequence of the inflammation.

NOTE.—The good effects of the local treatment were speedily perceptible. We gave the first treatment on Sabbath, and one on each of the two following days, then two daily till the following Sabbath, when we gave her the last treatment. On that day she walked a distance of about 80 rods, and on Monday dined with a neighbor whom she had been unable to visit for thirty-six years.

She purchased a generator and continued to treat herself, and is now gradually improving. Had we been able to continue the treatment, we doubt not the cure would have been effected long since.

No. 4.—Mrs. C., aged 36, had suffered eleven years, since the birth of her last child. Though able to walk about most of the time, she was very nervous, feeble, and constantly suffered from a languid and fatigued sensation, which rendered exertion of any kind a misery.

Gave Treatment No. 2. She did not feel the ordinary sensations from the current at the time, and the only effect subsequently perceptible was an increased sensation of languor and debility. She was unwilling to make further trial, but her husband (a physician out of practice) advised a few more treatments, which produced slight results. After further inquiry, and receiving a detailed account of the last childbirth, the true cause of her suffering, namely, retroversion and engorgement of the womb were discovered, which were accompanied with chronic inflammation.

After General Treatment as before, placed negative vaginal electrode in the vagina and manipulated the abdomen, stomach, liver and neck; then placing the patient in a sitting posture, we thoroughly electrized the whole of the back, especially the lumbar region of the spine, after which we gently treated the

head, forehead and face, and so downward to the lower part of the abdomen.

NOTE.—After fifteen treatments the patient was perfectly freed from the disease, and has had no need of professional aid since that time (1866).

No. 5. — Mrs. H., aged 30 years, suffering from paralysis of the facial nerves. The mouth was drawn toward the left side and the whole face distorted, articulation indistinct, headache, constipation and want of appetite. Her physician had raised the question of a genital difficulty. We made an examination and found a prolapsus or falling of the womb, attended with much inflammation throughout the whole genital region, accounting for her inability to walk, except with great difficulty.

Gave Treatment No. 2, after which we placed the negative vaginal electrode within the vagina, and treated her over the lower portion of the abdomen, carefully electrizing the ovaries; continued our manipulation over the stomach, liver, heart, lungs and bronchial region; then placing her in a sitting posture, carefully treated the spinal column, especially the lumbar region, then over the kidney, shoulders, back of the neck and cerebellum; allowing her to resume a reclining position, we treated the head, forehead and face with a very gentle current. We then removed the vaginal electrode, and placing a negative sponge electrode at the back of the neck, electrized the facial nerves from the nose and mouth toward

the back of head, after which, putting a dry napkin around the forefinger and moistening the tip, we directed a light current through her tongue, increasing the current as much as was compatible with the comfort of the patient.

NOTE.—These treatments were continued during a period of six weeks, daily for the first three weeks, and afterward three times a week, when she was cured.

No. 6.—Mrs. P., aged 50. Had suffered from nervous weakness for twenty-six years, and was so feeble she could with difficulty ascend the stairs. There was great prostration of the whole nervous system, loss of appetite and other symptoms, which were supposed to arise from ulceration of the womb.

An examination showed that there was prolapsus of the womb, accompanied by inflammation and ulceration.

Gave Treatment No. 2 pretty thoroughly, then inserting the vaginal electrode, we gave the same local treatment previously described, omitting the electrization of the tongue; continued this treatment three times a week for a month, when we changed the vaginal for a uterine electrode (negative also), with an abdominal supporter to hold the uterus in its natural position, and treated as before.

NOTE.—The patient improved rapidly from the first, and at the end of the second month, when we were about to leave New Haven, felt perfectly restored, and on our next visit the following year, said she had been but little troubled with any of her old difficulties.

No. 7.—Mrs. K., aged 32, the mother of two children. Was very feeble, not able even to sew. Had not got up from her last confinement, two years previous. A case of retroversion of the uterus.

Gave her Treatment No. 2 very gently, on account of her extreme debility. We then used a vaginal electrode and electrized the abdomen, ovaries, liver, stomach, heart, lungs and neck. The patient was then turned on her right side and an electrization given to the small of the back, kidneys, all up the spinal column, neck and base of the brain. She then lay upon her back and received a very gentle current over the head, forehead and face. This was continued for three weeks, when we used a uterine electrode and abdominal supporter to sustain the uterus in position, following the same mode of treatment as before.

NOTE.—She was soon enabled to walk, do whatever sewing was necessary in the family, and make a visit requiring a journey of three or four miles in a stage. Had she continued the treatment (the closing of our professional engagements in that vicinity precluding) she would have recovered entirely. As it was, the results were in every degree entirely satisfactory.

No. 8.—Miss A., aged 24, suffering from prolapsus uteri, accompanied with high fever and severe inflammation of the uterus. The abdomen was so tender that she could not bear to be touched, and the pain so severe as to cause her to scream. Placing the negative electrode at the base of the spinal

column, we treated the whole surface of the abdomen with a powerful current, by a very gentle pressure of the hand, no more than necessary to connect the current. In ten minutes the pain ceased, and in twenty minutes the inflammation had subsided and the patient was very quiet. We finished the first treatment by administering Treatment No. 2.

Next day made a diagnosis and found the uterus resting on the left side of the pelvis, and the ovaries much swollen and painful.

Gave Treatment No. 2, then inserted a vaginal negative electrode and manipulated the abdomen, ovaries, stomach and liver; the heart and lungs being very sensitive, we gave a very gentle current over that region.

Turning her on her right side, we thoroughly electrized the lumbar region, and then the whole of the back and spinal column; then changing her posture, we gently electrized the head, forehead and face. This treatment we continued for three weeks, latterly substituting a uterine electrode, with abdominal supporter. At the end of three weeks an offensive and copious discharge from the ovaries commenced and continued to flow for three weeks, during which we continued the treatment daily. At length the discharge ceased, the diseased organs healed up and the patient was restored to health, and strong enough to walk a distance of more than four miles.

There were many complications in this case, which we omit for the sake of brevity, but the treatment above described covered all the difficulties, and the

uterine electrode proved of great service in allaying the inflammation and inducing suppuration, by which the impurities occasioned by disease were carried away by a natural discharge.

No. 9.—Mrs. S., aged 45, had borne two children, but had suffered from the birth of the second child with prolapsus uteri. The symptoms had been much intensified during the latter four years, so that she was confined to her bed a great part of the time, and suffered much from excruciating pains in the head. The first time she came for treatment she was scarcely able to be about.

Gave Treatment No. 2, then inserting vaginal electrode, electrized the front of the person as before described; then seating her upon the negative, we electrized the lumbar region, and thoroughly over the kidneys, back, shoulders and back of the neck up to the cerebellum. Allowing her again to recline, we gently electrized the head, forehead and face, and, with a more powerful current, the neck and vital organs.

After a few treatments we substituted the uterine for the vaginal electrode, with abdominal supporter, and continued to treat as before.

NOTE.—These treatments continued at uncertain intervals during a period of six months, sometimes twice a week, and again at an interval of two weeks. In all about thirty treatments were given, when she needed no further professional aid.

No. 10.—Mrs. R., aged 46, had never had any children, but had been a sufferer for many years, during which she had expended a great deal for medical assistance, obtaining but little relief, and in too many instances suffering positive injury.

Gave Treatment No. 2, then with vaginal electrode inserted, gave a similar treatment to that last described over front of person, back and head, finishing as before at the abdomen.

NOTE.—In this case the uterine electrode was not needed, the vaginal being all that was required to effect permanent relief. We continued the treatment during two months, amounting altogether to thirty treatments, when she was cured.

No. 11.—Mrs. R., aged 45. The mother of several children, the youngest aged 16. Since the birth of the latter her health had been precarious, and for eleven years she had suffered terribly from nervousness, languor, dull, heavy feeling, acute pains in the head, especially at the base of the brain in the neck, between the shoulders and down the back, just below the small of the back, and was confined to her bed a great part of the time. This was a case of prolapsus uteri.

Gave Treatment No. 2, then inserted a vaginal electrode; the pain in the back being severe, we first treated the lumbar region of the spine thoroughly till the pain abated, then continued upward over the kidneys, shoulders, back of the neck and base of brain. Laying her on her back we now electrized the front of the person, commencing at the lower part

of the abdomen, and so upward over the ovaries, stomach, liver, vital organs and neck, and, with a gentle current, the face and forehead. Removing the vaginal electrode, we placed a negative sponge, dampened with warm water, at the base of the brain, and electrized the head.

NOTE.—To effect a cure, it required two months, giving two treatments per week. No uterine electrode used.

No. 12.—Mrs. P., aged 36, had several children. For twelve years had suffered from languor, general debility and pains in the side, back and head. She knew she had suffered from prolapsus, but believed that difficulty had been removed.

Gave Treatment No. 2, then inserting vaginal electrode, gave the ordinary treatment before described in front and on back of her person, then, with the usual precautions, over her head and face, and downward over the vital organs. Having a few days later made an examination and found prolapsus, enlargement and chronic inflammation of the uterus, we substituted a uterine electrode, with the aid of which we electrized her in a similar manner twice a week for two months.

NOTE.—Probably thirty treatments in all cured a malady that had been treated medically for twelve years without good effect. This, however, is not an uncommon experience in chronic cases.

No. 13.—Mrs. R., aged 35, had suffered from prolapsus uteri since the birth of her last child, continually getting worse till March, 1869; was so weak that she could not stand. She was unable to sleep without narcotics, or to relieve her bowels without purgatives. She complained of a sensation as if the abdomen had fallen away from the upper part of the body, in the region of the diaphragm. She suffered great pain in the lower part of the back, about the ovarian region, and from a “stitch” in the left side.

Gave Treatment No. 2. Then, after examination, inserted vaginal electrode, and gave the local treatment repeatedly described before, commencing at the abdomen, over the vital organs, then the back, from the base of the spine to the cerebellum, the head, forehead and face with a gentle current as before described, and then, with a more powerful current, the genital organs. As soon as we could use a uterine electrode we substituted that for the vaginal, and continued the treatment almost daily for about six weeks, when she was able to go about. The uterine difficulty was relieved and she was rapidly improving in health when we left the neighborhood.

No. 14.—Mrs. S. L., aged nearly 55. Though able to walk was very nervous and feeble, suffered much pain in the abdomen, especially on the left side; had suffered for a long time from female weakness, without being able to obtain relief. Upon examination

we found a prolapsed and indurated condition of the uterus and extreme sensitiveness of the organ, so that a speculum could not be used. At her request we gave her a course of treatment, though we could hold out but little hope of a speedy recovery, having just treated a very obstinate case.

Began with Treatment No. 2, then, inserting vaginal electrode, we treated the abdomen, ovaries, stomach and liver, then the lumbar region, over the kidneys, small of the back and up the spinal column, between and over the shoulders, neck, base of brain, head, forehead and face with a gentle current, and again with a stronger current over the throat, bronchial tubes and vital organs, placing the patient in an appropriate position as before described. After three or four treatments in this way, we found the engorgement removed and the uterus shrunk to the size of her thumb, and protruding from the vagina. Placing the uterus in position, we applied the abdominal supporter to retain it in its place, when she at once rose up and was shortly able to dispense with our services.

NOTE.—The course of treatment lasted about two months, during which we paid twenty-five or thirty professional visits. Her improvement was uniform and satisfactory.

CHAPTER XIV.

UTERINE OR WOMB DISEASES—CONTINUED.

No. 15.—Mrs. D., aged 45, had suffered since the birth of her youngest son, now a man ; had been bed-ridden during the greater part of the last four years ; was subject to terrible paroxysms, so that reason was well nigh dethroned ; had been treated for insanity. Found prolapsus, enlargement and much inflammation of the uterus.

Gave Treatment No. 2. Then putting the uterus in position, with a uterine electrode we treated her as described in case No. 13.

NOTE.—We were unable to remain until the cure was complete, but so satisfactory was the progress while treatment continued, that we have no doubt an early cure would have been effected.

No. 16.—Mrs. C., aged 45, had suffered many years from prolapsus, inflammation and ulceration of the uterus. Had suffered so long that she despaired of relief from any mode of treatment, and though urged by friends who had been benefited by electrical treatment to try it, it was only when we were about to leave the neighborhood that she at last consented,

so that she had only an opportunity to receive two or three treatments.

Gave Treatment No. 2. Then placing the uterus in a normal position, with the uterine electrode and abdominal supporter, we treated the front and back of person as described in No. 13. The agreeable sensation and relief experienced pleased her much, and gave her confidence of a permanent cure.

NOTE.—We have since heard that she continues to improve, and hopes soon to have an opportunity of resuming the course of treatment.

No. 17.—Mrs. B., aged 57. Was called in to this patient while on a journey in 1870. A consultation of doctors summoned for that day was unable to agree as to her difficulty, but were agreed that there was no hope of giving her any relief. While inquiring into her case she was seized with spasms, to which she was subject, and which were wearing her out. Nothing hitherto had given her relief. We gave Treatment No. 2, found the sympathetic nerves implicated, and put the thumb and finger on the branch nerves leading from the cerebellum, when the spasms ceased instantaneously. That these nerves were implicated was now distinctly proved, but the question still remained, where was the seat of the disease which originated the nervous derangements? We inquired if there was any genital difficulty, and was assured there was none, as her family physician, who

had attended her in ten confinements, suspected nothing of that character.

This being a natural inference, we confined ourselves to General Treatment No. 2 during our stay, which lasted a fortnight. During that time her general health improved, her appetite was increased, and she was enabled to move about the house and visit our rooms for treatment. Feeling herself so much benefited, she determined to go to New York with us on our return, accompanied by her husband and a maiden relative who acted as nurse, in order to continue the course. She bore the fatigue of traveling well, receiving two treatments on the road. For the first month she continued to improve so rapidly that she was willing that her husband should return home. While he was making arrangements for this purpose, she was seized by a terrible paroxysm, which convulsed her from head to foot, but affecting the left side principally. We immediately applied electrization and continued for two hours to operate, using all the skill of which we were master. Having retired to write a note, requesting the attendance of Dr. Darling, the professor of anatomy, New York Medical College, we were summoned again to her bedside, as she had apparently died. We immediately accompanied the messenger into the room, and found that consciousness had fled and respiration and pulsation were suspended.

I was deeply moved as I looked on that scene—the bereaved husband turning away to weep in agony of spirit, and the affectionate, faithful friend keenly

sympathizing in his sorrow. My two daughters, who were present ready to give any assistance possible, were equally affected with myself. Suddenly I felt a presentiment that the functions of life were but suspended, and that by the aid of electricity, judiciously applied, the vital forces might be stimulated to action, and the circulation of the vital fluids sustained, till the heart and lungs could resume their functions. Placing the negative electrode to her feet I raised her, and placing myself on the bed, my back against the head-board, and resting her head on my breast, I sent a powerful stream of electricity downward from the heart and lungs, by manipulating downward over the stomach and abdomen, and along the course of the pneumogastric and phrenic nerves to promote respiration, at the same time directing each of those present to take one of the limbs and aid the process by gentle friction. Soon a quivering of the eyelid, and then a faint groan, gave intimation of returning animation, and in less than an hour she was able again to converse and partake of food.

Next day Professor Darling arrived, and hearing the particulars of this extraordinary case, also inquired whether there was any uterine difficulty. Being informed she had none, and making every inquiry suggested by the circumstances of the case, he remarked on retiring that it was one of those mysterious cases which would probably never be fully understood till dissection should enable us to unravel the mystery. He highly commended the treatment we had given, and recommended a continuance

of the course, as the success that had so far crowned our efforts was very gratifying and encouraging. He also recommended a thorough examination.

On the next day, finding our patient recovered from the effects of the paroxysm, and quite comfortable, we made an examination with the speculum and found prolapsus, enlargement, inflammation and extensive ulceration of the womb.

On finding this to be the case, we applied an abdominal supporter and also a uterine electrode, which speedily restored the uterus to its normal position. We used these, after No. 2 Treatment, for local treatment. We manipulated over the abdomen, ovaries, stomach, liver and breasts. Turning her on her right side, we thoroughly electrized the hips, lower part and small of the back, kidneys, between and over the shoulders, back of the neck and cerebellum. Here we found it very sensitive; it will be remembered that the paroxysm was controlled by electrizing the two leading nerves by my thumb and forefinger.

This treatment was continued morning and evening till the seventh day; on that day we were summoned to the patient in consequence of the recurrence of a paroxysm similar to the one before described, which lasted four hours, ending as before in temporary suspension of the functions of life. We adopted the same course as before, and after about an hour she was again restored to consciousness and partook of food. The next day we inserted an internal uterine negative electrode, in addition to the supporting electrode, and treated her as before, in front of her person;

then withdrawing the intra-uterine electrode, and using only the supporting electrode, we completed the treatment as before described. This treatment we continued during another seven days, when a paroxysm recurred, which lasted six hours, ending as before, which was relieved by the same course of treatment as at first.

From this time the strength of the paroxysms diminished until she only experienced a slight sensation on the seventh day, the above described treatment being steadily continued till she returned home.

NOTE.—There were still other difficulties distinct from those mentioned, which we shall notice under another head.

After arriving at home, she found herself fully as comfortable as she expected, and continued so when we left, having had no paroxysms for the three weeks previous.

This was a terrible case, both to the sufferer and her attendants, and a greater demand upon the skill and judgment in the use of electricity than we were ever before called upon to exercise; in other words, we never had a precedent.

In justice to all concerned, it should be fully stated that it was with great reluctance that we consented to the patient's proposition for us to accompany her home, and we yielded only because she seemed to feel that she would improve much faster under our care if with her family, as she would be freed from the anxiety which troubled her while away from them, having been absent for three months. We took a generator with us, together with the apparatus for inserting the intra-uterine electrode, the use of which we found so efficacious in controlling the paroxysms.

Upon arriving at their home, we found upon inquiry that, through the neglect of the nurse, the electrode had been left behind, and as to make a new one would involve a journey to

New York, we decided, though with many apprehensions, to continue the treatments without it.

On the Sabbath after we left she had a light spasm, lasting less than half an hour (as her husband wrote us) and died.

We have every reason to believe that had she remained with us she would have regained her health.

No. 17.—Miss R., aged 44, had been a great sufferer since 1845, drinking deep from the cup of suffering day and night unless under the influence of powerful anodynes. Commenced with a cough, supposed to be consumption, and was treated accordingly. It produced such difficult respiration that for months she could not recline, and a pain from the small of the back to the extremity of the spine was so intense that she could not assume any position that afforded a particle of relief. There were also urinary difficulties of the most painful nature, with high inflammation, so that it was sometimes difficult to insert a catheter. At the expiration of six years she changed physicians; an examination was made, which discovered a severe case of prolapsus, inflammation and ulceration of the uterus, together with induration. (See note.) This state of the case continued for twelve years, with great suffering, hardly any relief except by narcotics, and with no permanent benefit. During this there was added to her difficulties, palpitation of the heart, inflammation of the abdomen, torpid liver, no action or motion of the bowels, only by enemas, no appetite, dyspepsia and great distress in the head. At this time she was taken to a motorpathic

and hydropathic institute, where the case was benefited more than at any previous time; but overdoing, was prostrated again. Resorting to the same means, she became more comfortable, but the difficulties were not removed. This state of the case continued until 1870, when she came under our care; on examination discovered that there was prolapsus and retroversion of the uterus. Took an electrical diagnosis, found an extreme nervous sensibility throughout the system, the liver in a torpid condition, lungs and head extremely sore, even to the touch; the heart was greatly agitated, but quieted down by continuing a gentle current; the abdomen much distended and sensitive.

Gave Treatment No. 2, then used a uterine electrode and abdominal supporter, with which we placed the uterus in a natural position; then attached the negative conductor, and gave local treatment, with a very light current over the abdomen, ovaries, stomach and liver; then the vital organs with a lesser current; then turned her on her right side and treated the lower and small of the back very thoroughly, for the purpose of reducing inflammation at the uterus, being extremely tender; then treated the kidneys, spine, between and over the shoulders; in the lower portion of the neck found a chronic inflammation, and very sensitive; this difficulty had prevented her from raising her head for years, unless firmly supported, and but for a few moments at a time at that. Gave particular attention to this locality; we then treated the lower brain as high as the top of the ears; then turning her on her back we dampened the hair and brush-

ing it down smooth, with the palm and whole hand pressed firmly on the head, applied a very light current, which quieted her nerves and relieved the head and forehead; we then treated the face and neck, heart and lungs, which were extremely sensitive, finishing with the abdomen.

This mode of treatment was continued daily, morning and evening, for a month, the patient slowly improving in appetite and digestion. The palpitation of the heart was always relieved while treating her, and frequently she would continue comfortable for some time. After the genital difficulty had improved somewhat, the uterus having been supported by the uterine electrode with which we gave local treatment, the induration, inflammation and sinking spells still continued, when we used an internal uterine electrode, inserted by means of a speculum and uterine dilator. For another month we continued this treatment, alternating between the internal uterine electrode—the supporting one and the diffusive vaginal electrode [see note] in continuing the same general and local treatment, with many variations of minor importance, effecting, more or less, a general improvement of the case. We continued this for three months more, with a gradual improvement all the while, only extremely slow; but so apparent, both to the patient and physician, that faith in a final triumph was never despaired of. The palpitation of the heart had ceased, appetite improved, digestion tolerable, the intestines throwing off a lining, retaining the shape in some, and in others looking like the scrapings of

the intestines, sometimes half a teacupful at an evacuation, until this seemed to all pass away.

Four months having passed, she was removed to our rooms, and the same system continued, with slight variations, as the case seemed to indicate, such as local treatment over some particular organ that was temporarily troubling her. It is now over eleven months since she came under our care, having received treatment morning and evening, beside a generator for her special use. She receives the electrical current, the negative being either at the feet, the base of the spine, at the supporting or intra-uterine electrode, or diffusive vaginal electrode alternating to the different points, as changing symptoms indicate, a probable average from seven to nine hours during the twenty-four. The first few months of treatment this seemed indispensable to stay the pain or subdue the sinking spells, and give her rest and sleep. As time progressed she required less and less of it, so that the treatment which required a full hour, and sometimes more (when she was having her sinking spells), to recuperate her lost vitality, at the present time does not require more than fifteen or twenty minutes, morning and evening, beside the electrical current, from five to seven hours out of twenty-four, with the negative at some one of the points above mentioned, and the positive upon any point that is most affected.

At this time (August, 1871,) she is daily improving, able to walk and attend to many household affairs, keep books, copying for me, and makes herself gener-

ally useful, and gradually but slowly improving all the while: attends church occasionally. The treatment will be continued.

NOTE.—As far as consistent we have been as brief as possible, while making it as intelligible to those who wish to study the case and notice the workings of electricity as administered by us with the electro generator and various electrodes employed in this as well as in all uterine affections, which seems to us indispensable to recuperate and regenerate as it were the whole of this formerly shattered system. Nothing but good food and drink has been taken into the stomach, or other means employed except those herein mentioned, while the same is true of every case cited in this book. This case, if no other, will serve to satisfy the mind of the physician, who has hitherto been in doubts as to the extent that electricity can be introduced for therapeutic purposes.

No. 19.—Mrs. H., aged 50. Health had been declining for three years. The first trouble was indicated by lifting a child from a cradle, she felt something give way, which disabled her from her usual avocations, and continued to increase.

We took a diagnosis of her case, found retroversion, and very much inflammation and enlargement of the uterus.

Gave Treatment No. 2, then inserted the uterine negative electrode and treated the abdomen, especially the lower part, thoroughly, then the ovaries, stomach, liver and vital organs. She then sat up, and the lower and small of the back were thoroughly treated, up the spine, over the kidneys, between and over the shoulders, back of neck, base of the brain;

then turning her on her back, we gave gentle treatment over the forehead and face.

This was continued daily for a course of seventeen treatments; she improved from the first, and left well, and has remained so ever since.

No. 20.—Mrs. W., aged 35. Ill health for twelve years. In February, 1871, took a diagnosis of her case, and found her condition about as she stated; also, from prior examination by her family physician, a retroversion, enlargement, inflammation, and an ulcerated sore from the os, or mouth of the womb, on one side, three fourths of an inch long and about half way around; also a suppression of the menses.

Gave Treatment No. 2, then used the uterine negative electrode to sustain the uterus in its natural position. This being done, we gave local treatment over the abdomen, the ovaries, stomach, liver and vital organs. Then turned her on the right side, and gave thorough treatment at the small and lower portion of the back, then over the kidneys, spine, between and over the shoulders and neck. We found it very sensitive at the base of the brain, which we especially attended to; then turning her on her back, we treated the top of the head and forehead, first wetting the hair; then treated the throat, which was sore from dropping of catarrh in the head. This treatment was continued for a few days, when menstruation commenced, when we suspended the treatment for a short time. The menstrual flow being very profuse, we attached the

positive conductor to the diffusive vaginal electrode, and gave an upward treatment. In this case we used the insulated reversible electrode over the spine, kidneys, and a general treatment over the back; this strengthened the patient and checked the flooding. The general and local treatment, before discontinued, were given for two months, generally regularly, receiving in all about forty treatments. At the end of this she left for the country, being able to ride, walk and attend to shopping for five hours at a time, which she had not been able to do in years before.

NOTE--This patient remarked that she had been gradually growing worse, but sometimes a change of physician caused her to imagine that she was actually better, but all hopes failed of realization until she came to us. She remarked that she would take no stock in any new physician, but came to us, since they had told her a flattering story, "that they (we) understood her case, could benefit, and, without a reasonable doubt, could effect a cure." A recent letter says, "The stock remains good and rising." She took an electro generator with her. We should have added that the ulcer sores, enlargement, and most of the inflammation of the uterus had subsided when she left, and she now appreciates health regained.

No. 21.—Miss P., aged 33. For several years an invalid, suffering from retroversion and prolapsus, or falling of the womb, greatly afflicted with bearing down against the rectum; stools very difficult and painful; constipation, with a torpid, inactive liver; stomach at times very weak, unable to digest food, complained of a distressed fullness after eating or walking. Was partially paralyzed from birth, which

affected her walking, also one hand, and the tongue was affected so that she could not articulate easily.

Gave Treatment No. 2, then used a uterine negative electrode, which supported the uterus. Then gave local treatment over the abdomen, ovaries, stomach, liver and vital organs; then causing her to sit up we gave especial treatment to the lower and small of the back, over the kidneys, between and over the shoulders; treating the head and forehead with a light current, then put a napkin around the finger, dampening the end with a drop of water, letting a strong current run on the tongue a few moments, then the patient protruded the tongue to prevent touching the teeth, although they will not be affected so long as the napkin is dry where it comes in contact with them.

NOTE.—Gave thirty treatments in the course of two months, which relieved her of all her difficulties, except those from birth. We received a note from her mother, in which gratitude was expressed for her daughter's improved state of health by electricity.

No. 22.—Miss G. B., aged 15, had pain and lameness in the small and lower part of the back since she was five years old; was obliged to rest her hands on something to enable her to rise; when standing she could walk with difficulty; healthy in every other respect.

We gave Treatment No. 2, then locally over the back and hips; this was continued for one week with no perceptible improvement. After making a more

thorough examination, found prolapsus of the uterus to be the cause of her difficulty. We then used a uterine electrode, with which we replaced and supported the uterus. We continued Treatment No. 2, then changed the negative to the uterine electrode, and gave local treatment over the abdomen, across the hips, then over the small and lower portion of the back and spine.

NOTE. —This uterine difficulty was supposed to be the result of a fall from a ladder, striking directly upon the seat, which jarred her badly, and from this date the pain, soreness and difficulty of rising continued until she placed herself under our treatment, and found relief from all her difficulties to the delight of her friends.

No. 23.—Miss Y., aged 33, bedridden since July, 1869, was failing rapidly, scarcely able to raise her voice above a whisper, unable to lift her hands or arms without great exertion, lower limbs in the same condition. A speculum examination disclosed an enlargement, inflammation and prolapsus of the uterus.

Gave Treatment No. 2, then supported the uterus by a uterine electrode, making it the negative, and gave local treatment over the abdomen, ovaries, stomach and vital organs; then turned the patient on her side, and treated the lower and small of the back, kidneys, spine, over and between the shoulders and back of the neck. Turning her on her back, we treated the head and forehead, which was very sensitive. She received from twenty-five to thirty

treatments within two months, when she was able to do her housework very comfortably.

NOTE.—About a year previous to our professional services, she fell on the sidewalk in New York, and was conveyed home in a carriage, nearly helpless, resulting in her becoming entirely bedridden. About four months previous to our seeing her, she had become so much reduced that her friends supposed she could live but a short time.

No. 24.—Mrs. L., aged about forty. Was called March 24, 1871. She was in terrible agony when we entered, and had been so for five hours. Gave her Treatment No. 2, which quieted her, then locally where the pain was most acute, over the small of the back, rectum, and the lower portion of the abdomen; which very soon relieved her. Subsequent examination discovered retroversion, enlargement and inflammation of the uterus. Used a uterine electrode to replace and support the uterus, which was attached to the negative. Gave treatment over the abdomen, stomach and liver. Turned her on the right side, and treated the lower and small of the back, spine and back of the neck. For bearing down and acute pain in the rectum, we attached the negative to a reversible electrode, placing it at the lower end of the spinal column, then holding the positive in the same hand, with the other we applied a damp sponge electrode to the anus, thus passing the current through our system to the patient, giving an upward current through the rectum to the lower end of the spinal column, for the purpose of reducing the hemorrhoids

or piles, caused by the obliquity of the uterus. In addition, we were obliged to use a rectum sponge electrode. Gave local treatment with the positive electrode at the anus. This we continued till the last vestige of pain and chronic inflammation disappeared, which was one of the last symptoms to yield; all her difficulties improved from the first, except that there was weakness from prolonged illness. Our services ceased, by the patient leaving for Europe.

No. 25.—Mrs. B., aged 37, had not been able to move her lower limbs for two years and a half. The feet and limbs below the knee were very much swollen. She was a great sufferer. The difficulty extended to the small of the back and lower portion of the abdomen, all in a helpless condition. When about six months pregnant she received a fall, which was supposed to be at least a partial cause of her present condition. On examination we discovered prolapsus and retroversion of the womb with enlargement and much inflammation extending over the viscera. We placed the uterus in position by means of a uterine electrode, putting on an abdominal supporter. She suffered great pain and soreness in a portion of the small of the back, about two inches wide, extending to the hips. We gave Treatment No. 2, then placed the negative at the uterine electrode and gave local treatment over the abdomen, ovaries and stomach; then causing her to sit up,

gave local treatment over the lower and small of the back and kidneys. As it was desirable to treat her in an upright position, straps were attached to the abdominal supporter and affixed to a tackling extending from the ceiling. By this means she was raised to a standing position. We placed the negative alternately under each foot, and treated the limbs thoroughly with a strong current. At first she was entirely insensible to its action, and we were frequently obliged to allow her to lie down, as she could not maintain an upright position more than a few minutes though upheld, as before described. During this time, however, we continued to treat the limbs.

This course was pursued for two months, taking four treatments a week, until she gradually improved, and was able, by leaning on the arm of an attendant, to walk about the house, when our professional services ceased. A continuation of the same treatment would have cured her.

NOTE.—This was considered a triumph of our treatment. At the commencement of the treatment, when asked how she would feel to stand without the uterine electrode, she replied it would feel as though she would fall in pieces. She never could have walked without the uterus being sustained in place by the uterine electrode and abdominal supporter.

No. 26.—Mrs L., aged 45, had been affected for four years with prolapsus of the uterus, much of the time was confined to her bed, and had a most excru-

ciating headache. She was barely able to come to us for treatment.

We gave No. 2, and then a local treatment by inserting a vaginal electrode and treating all over the abdomen, ovaries, stomach and liver. Then, causing her to sit up, we manipulated all over the back, especially the kidneys, the shoulders, back of the neck and cerebellum. Then, laying her back and moistening the hair, we stroked the head down on either side, as well as the forehead, with the palm of the hand, after which, increasing the current, we electrized the neck, breast and vital organs.

After a few treatments we changed the vaginal electrode for a uterine electrode and abdominal supporter to sustain the uterus in its natural position, and then electrized in the same manner as when the vaginal electrode was used.

NOTE.—These treatments were given at irregular intervals during a space of about six months, in which time about thirty were given, when her difficulties were all removed.

In uterine difficulties, the head is more or less implicated. This can be relieved in a short time by moistening the hair, and applying a light diffusive current with the palm of the hand fitting close on the forehead, the fingers extending over the head.

WRY NECK.

Mrs. W., aged 50, was taken with a wry neck a day or two before we saw her.

She was suffering excruciating pain, which was

intensified by the least movement of the head or jar in the room.

We seated her upon the negative and then treated the spinal column and neck, including the little brain.

In half an hour the difficulty was all removed, she could move her head in any direction she pleased, and required no further treatment.

CHAPTER XV.

THE PERFECTED ELECTRO MEDICAL GENERATOR.



The results recorded in this book sufficiently indicate the mission of this apparatus, and it only remains for us to describe the mechanism and explain its phenomena in such a manner that all who are interested in its use in healing disease, may easily understand.

As seen in the illustration, there is an outside case

or cup, which serves two purposes, one to facilitate portability, the other to hold the copper bath and prevent outside drippings. The copper bath is to hold the solution of pure sulphate of copper: the cover to the bath has suspended from it the negative element, which is made of pure O spelter or zinc. This is secured to the cover by screws insulated by hard rubber columns. One of these fastenings is the primary negative pole, which leads up into a terminal, insulated from the cover. The other is the primary positive pole, likewise insulated with a rubber column, and is connected with the metal cover of the bath by a piece of copper soldered at the point where it joins the top.

From these poles we obtain the primary current when connected by a conductor from the terminals, one of which, the positive, stands at the left front of the helix; and the other, the negative, directly opposite. These terminals are fastened to the poles by side screws, and have an orifice near the top for the insertion of the metal end of the conductors, which are then secured by means of the top screw.

The terminal at the right front of the helix is for the purpose of regulating the rheotome, or circuit breaker, which communicates the electrical current to a soft iron in a magnetic coil, which is covered with hard rubber.

This terminal has a side screw running entirely through, it is called the platina screw, on account of having its end tipped with platina, and being secured against a plate of the same metal soldered on the

rheotome; on top is a screw to secure the side screw when properly adjusted. To the right of the terminal we have just described, and about in the centre of the right side, are two others. These are the positive inductive, and directly opposite are the negative inductive terminals. These have each of them an orifice in the side for the metal point of the conductor, and a top screw to secure it when inserted. These inductive terminals, viz., two positive and two negative, are duplicates, and either one of the two on each side can be used. The helix, or primary and inductive coil, is surrounded on the outside with a silver plate, into this the pistons are inserted for the purpose of increasing or diminishing the strength of the current.

There are three pistons, numbered 1, 2 and 3 respectively.

No. 1 ranges from a low current to one necessary for the most heroic treatment, and is the one most generally used.

No. 2 is of medium power, and is for nervous, feeble persons.

No. 3 gives the lowest and slightest current, and is adapted for infantile treatment.

Nos. 2 and 3 are insulated with wood, having a small crevice extending lengthwise to facilitate the magnet's influence.

No. 1 is of metal throughout. The orifices on the right and left side of the generator are merely intended as receptacles for the pistons, when not in use.

When the primary current is needed, all that is necessary is to suspend the action of the rheotome, and

attach the conductors to the positive and negative primary terminals respectively. The current generated is imperceptible, and a powerful one may be transmitted to any part of the system.

DIRECTIONS FOR USING THE GENERATOR.

First.—Put one pint of cold water into the bath, to which add a sufficient quantity of pure sulphate of copper to insure strength of solution, only what is needed will dissolve.

Second.—Put the cover on with magnet and zinc in place.

Third.—Adjust the platina screw carefully against the rheotome; when right it will vibrate, producing a steady buzzing noise and a diamond spark.

Fourth.—Attach the conductors to the induction terminals as follows: One to either of the positive, on the right of helix, and the other to either of the negative, on the left, directly opposite.

An orifice will be found in the side of the terminals, in which the conductors are to be inserted, and they are fastened by means of a screw on top.

Fifth.—The pistons mentioned in the description of the generator are, as we have stated, for the regulation of the current. The farther they are inserted in the helix the stronger will be the current.

For further explanation see description of generator.

Sixth.—The positive primary terminal has a side screw to fasten the primary positive pole ; it also has an orifice above for the conductor of the primary positive current.

Seventh.—The negative primary terminal has also a side screw to fasten the primary negative pole ; it also has an orifice above for conductor of primary negative current.

Eighth.—The primary current produces no perceptible sensation upon the system, and the piston magnets have no effect as in the inductive currents, although this current will ring a bell or exert great power upon a magnet, and is of great importance in some cases that no other current can reach successfully.

DIRECTIONS FOR KEEPING IN ORDER.

First.—To remove the cover and zinc from the bath, turn it while over the bath to prevent dripping on the table ; laying it down on the terminal screws affords a good chance to scrape off any deposit with an old case knife or file, the drippings falling into the cover ; it can be replaced by observing the same manner of turning it over the bath. Any thick deposit at the bottom of the solution may be poured off.

Second.—When in constant use it is well to clean the zines every day, and the bath say once a week, always retaining the solution to put back in the bath,

adding a proper quantity of water as at first directed, and more sulphate of copper when necessary.

Third.—To separate the cover from the magnet loosen the side screws in the primary terminals and lift off the magnet, being careful to let it rest on the terminal screws, and not on the bottom, as it is very necessary to preserve that dry. After washing or repairing the zinc (taking care not to loosen the primary poles by handling) the magnet can be replaced by observing that the positive and negative poles are in their proper places. The positive may be known by a piece of copper which has been soldered at the point where it joins the cover. In placing the magnet, the positive pole should be placed in the orifice, on the under side of the magnet nearest the helix.

Fourth. — When not in constant use, for the longer preservation of the zinc, the cover can be removed and stand upon the terminal screws; or place the zinc in clear water, which is still better; but for the constant practitioner this is not necessary to be done. In his case the circuit is broken by the platina screw, the zinc being allowed to remain in the solution. There is not much action upon the zinc except when the circuit is closed.

ELECTRICAL CURRENTS.

We have been so frequently asked to explain the difference between the variously named currents that we propose to do so herein as concisely as possible.

The reader will perceive that we have used but two terms by which to designate the various electrical currents, for though there may be many others employed, they are all derived from the same thing, viz., the primary and inductive, or secondary. These are the proper names, although the primary is sometimes called the galvanic, in honor of Galva, who discovered its power to transfer one metal on to another, usually termed galvanism.

The positive primary pole receives its action from the copper cup and cover, from whence comes the electric current. The negative primary pole being connected with the spelter or zinc receives the current which is excited through the medium of a solution of sulphate of copper in the bath. This simple arrangement, as we have indicated, generates the primary current. The generator with this current will ring a bell, magnetize an inch and a quarter horse shoe magnet, so as to render it capable of supporting over two hundred pounds, or concentrate a heat sufficient to ignite powder, while at the same time it is hardly perceptible when passed through the human system.

The generator while giving off the primary current also produces the inductive or secondary, and we will endeavor to describe the latter.

This is frequently called the Faradaic current, in honor of Faraday the discoverer.

The primary current is conducted from the poles to a primary coil of coarse insulated copper wire, two or three layers of which are sufficient. This having been

completed, another coil is commenced, called the inductive coil; it is of very fine insulated copper wire, thoroughly insulated from the primary coil, and is wound as thread upon a spool is until it has attained the required size.

The primary coil being connected with the poles forms an independent circuit, and its centrifugal force throws out an electrical influence within a radius which Professor Faraday terms a magnetic field, and represents it as seed or sand being thrown from the periphery of a wheel when at tremendous speed.

The inductive coil, though entirely insulated from the primary, being within this magnetic field, is affected by it, and a current is produced which is termed inductive. This coil is connected with the positive and negative inductive terminals, the current being broken by the rheotome connecting with the magnet. This is necessarily accomplished in a very delicate manner: the rheotome has to be arranged so as to secure perfect regularity and exactness in the current, which should vibrate upon the nerves in a manner not unlike the tremor of the strings of a violin, and, when properly adjusted, would have a perfectly soft and smooth sound.

In regard to the inductive current we are induced to use one illustration, which will be familiar to all.

A railroad car moving with great velocity produces a very perceptible influence upon everything that is near the passing train, grass, chips and even stones move in the same direction with a whirling motion produced by the induced current of air. We suppose

that it is the speed which produces this phenomenon, but we can scarcely use that term when we consider the tremendous velocity of the electric current whirling around the primary coil, affecting the inductive coil (same as the train affects everything within a certain radius on each side), and producing thereby what is known as the inductive current, which is connected with the terminals in the manner previously described.

Again, there is another phenomenon connected with the inductive current, and it is this: The magnetic field does not produce much effect until it is magnetized, which is done by means of a bundle of soft iron wires (which we call a piston of magnets) inserted in the core or centre of the inner coil, and this magnetizing increases in proportion to the distance the piston is inserted in the coil or helix.

For description of the pistons used in our apparatus, see description of generator.

CHAPTER XVI.

ELECTRODES.

DESCRIPTION OF PLATE.

FIG. 1.—REVERSIBLE ELECTRODE.*

This electrode is made of polished wood, the sponge is held in position by means of a pin which passes through. At the end of this pin is seen an eye, to which the conductor is to be attached. We consider it a great improvement on the various forms of sponge cups in use, as with it the patient, by taking hold of the wood portion, taking care not to touch the sponge or pin, is enabled more conveniently to treat every part of the body, thus obviating the necessity of any assistance.

When used by an operator it may be reversed by holding it so that the sponge rests against the palm of the hand.

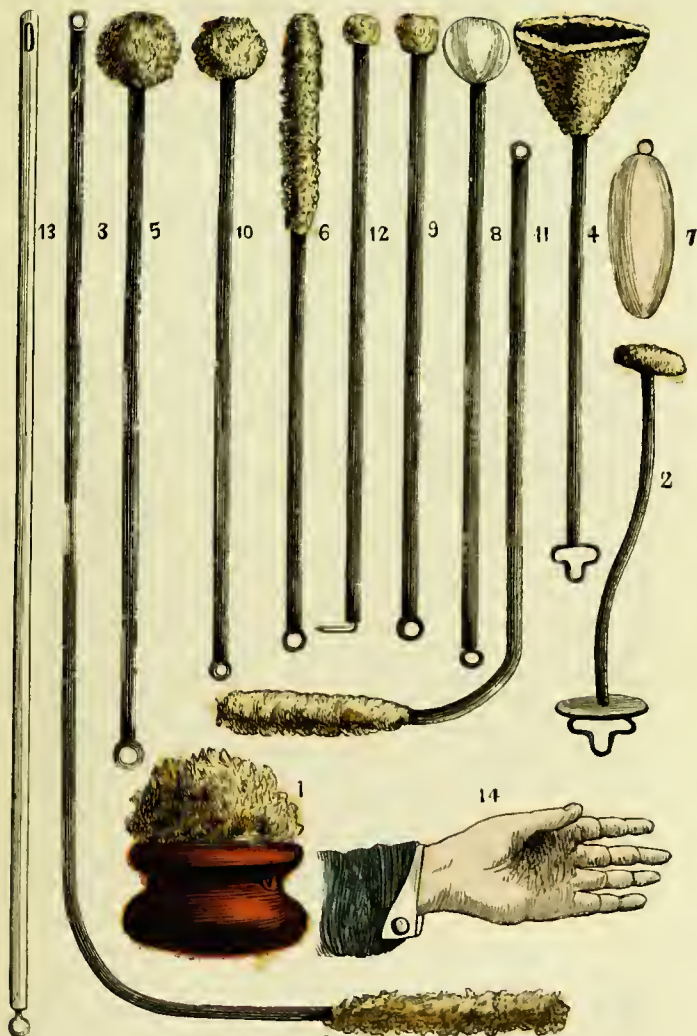
FIG. 2.—SUPPORTING UTERINE ELECTRODE.†

The uterine electrode is used in connection with the abdominal supporter to sustain the uterus in its natural position. It also serves to communicate electricity to the uterus for the purpose of reducing congestion and inflammation, which are the source of ulceration, thus healing the parts and overcoming the difficulties of prolapsus, anteversion and retroversion.

It is mainly with this electrode that the cures of these complaints recorded in this book have been accomplished.

* This electrode was patented in 1871.

† This electrode was patented in 1867.



ELECTRODES.

It is constructed of German silver wire, insulated with vulcanized flexible rubber and a very fine texture of sponge. Each electrode has to be made and fitted to each patient with great care, so that it can be worn free from any uncomfortable feeling.

At first the parts may be too sore and inflamed to allow of its being used, in which case the vaginal electrode may be substituted until the soreness and inflammation have subsided sufficiently to permit its use.

FIG. 3.—INTRA UTERINE ELECTRODE.

This is used for the purpose of concentrating the current upon all parts of the uterus, in order to accelerate the discharge arising from the condition of this organ and its surroundings during inflammation. These discharges are generally of an offensive odor as long as the difficulty continues, and when it subsides, the further use of the electrode is suspended in ordinary cases.

In one of the cases recorded in this book we found the patient with over thirty boils on the back, which culminated in one at the small of the back, that discharged very freely; soon after this, terrible spasms took place. We found these to arise from the condition of the uterus, and accordingly inserted the intra-uterine electrode; after a few treatments the discharges commenced, and after three or four weeks the paroxysms subsided. Two or three weeks passed without their recurrence, when, feeling able and very anxious, she went home; arriving there, the use of this electrode was suspended through neglect, and in one week she had a paroxysm and died.

Had the use of the electrode been continued, it would have continued the discharge and obviated the fatal result.

We mention this to establish the importance of this electrode in uterine difficulties.

FIG. 4.—DIFFUSIVE UTERINE ELECTRODE.

This is made of a eup sponge attached to insulated wire, it is easily inserted and spread by moving it up and down. When thus spread it serves a double purpose, first, by affording a soft resting place for the uterus, and secondly, by diffusing an

effectual current all over that organ, which is especially desirable in cases of inflammation and soreness.

FIG. 5.—VAGINAL ELECTRODE.

This is composed of a round sponge ball, about one inch in diameter, fastened to an insulated wire. It serves to concentrate the current internally on any part of the vaginal cavity. It is easily inserted, and serves a good purpose when neither of the other electrodes is necessary.

FIG. 6.—ELONGATED VAGINAL ELECTRODE.

This is also made of German silver wire insulated with rubber. There is an eye at one end for the purpose of attaching it to the conductor.

The other end of the wire is for about three inches covered with linen cambric, over which fine sponge is wrapped and sewed to the cloth.

This is used when there is a prolapsus of the walls of the vagina, or when irritation, inflammation and soreness are present. It has proved a very valuable electrode.

FIG. 7.—EXTERNAL VAGINAL ELECTRODE.

The body of this electrode is made of sponge of an elliptic form, two inches long and three-fourths of an inch thick in the middle.

It is covered with linen or cotton cambric, and has a small wire inside with an eye on one end for the purpose of attaching it to the conductor (negative).

The electrode is pressed close to the vagina and urethra for the purpose of allaying inflammation or irritation.

FIG. 8.—THROAT ELECTRODE.

This electrode is made in shape and manner like the vaginal electrode, and covered with fine cambric. When used, the patient will hold it in the mouth as near as possible to the affected parts. It is to be attached to the negative, when the operator, holding the positive in one hand, will treat the neck all round as low as between and over the shoulders, and as high

as the hair. On the sides, from the shoulders up to the ears, and in front, from the bronchial tubes as high as the teeth nerves on the chin. For subduing the congestion and inflammation present in cases of quinsy, and the various forms of sore throat, it will be found invaluable.

In cases of falling of the palate its use is very beneficial, as it serves to raise and strengthen the palate in its normal position. The operator, holding the positive, will be careful not to manipulate above the palate, as it is necessary that the current should pass from below in order to contract and lift the palate to its place.

One treatment generally suffices to bring about this result, but in chronic cases more may be necessary.

FIG. 9.—NASAL ELECTRODE.

This is made of German silver wire, insulated with rubber; to one end is affixed a sponge, and at the other is an eye for the purpose of attaching it to the conductor.

When used, it is inserted in the nostril so far as to be above the teeth nerves, which are about half way up the nostril; beyond this is a cavity where the sponge rests to receive the current which comes from treating the forehead in cases of catarrh, stoppage of the nostril, etc.

The current should be applied lightly at first.

FIG. 10.—RECTUM ELECTRODE..

This is made in the same manner as the vaginal electrode, except that it is smaller.

It is used in cases of piles, or sores in the rectum, when the current needs concentration on any particular portion of the rectum.

FIG. 11.—ELONGATED RECTUM ELECTRODE.

This is made of insulated wire; the insulation is stripped off about two inches and a quarter, and the wire wound around with linen cambric, the end of the wire being bent in the shape of an eyelet, to prevent the cambric from slipping off.

A strip of fine sponge is then placed over this, and sewed

together, so that when done it will be about the size of an ordinary penholder. This is inserted into the rectum as far as convenient, and being attached to the positive, the negative reversible electrode is moved up and down the spinal column.

This will be found very valuable in all cases of piles. It frequently happens that the parts are too tender for its insertion, in which case a diffusive current from a sponge must be used until the parts can bear the insertion of the electrode; a full explanation of which will be found recorded in cases 2 and 3, under head of Piles.

FIG. 12.—TOOTH ELECTRODE.

This is made of German silver wire insulated with rubber; at one end is a metal point to concentrate the current on the nerve for the purpose of killing it. This will be found very useful in dentistry; the point should be held directly over the nerve, and commencing with a light current, gradually increase until the nerve is killed. On the opposite end of the electrode is affixed a sponge, thus giving a more diffusive current; is useful in cases of nervous toothache, the current being conducted from another electrode held in the hand.

FIG. 13.—CATHETER ELECTRODE.

We have made use of the common catheter as an electrode, and find it a very valuable one. Its use, as all are aware, is for the purpose of drawing the urine from the bladder when the condition of the parts renders it necessary.

It is very serviceable in removing irritation, inflammation or soreness of the bladder.

This is done by inserting the catheter through the urethra into the bladder, leaving the wire in and fastening it to the negative, then manipulating over the abdomen, hips and back, the current thus passing through to the electrode. If there is irritation low down at the urethra, treat with the finger all about it.

This is done previous to withdrawing the wire. If the bladder is empty, a solution of loaf sugar and water is injected, as the reader will find explained in the cases of inflammation of the bladder.

THE HAND AS AN ELECTRODE.

It is patent to all that the human hand needs no description, but its great power and utility in electrical therapeutics may not be well understood.

Of all the electrodes used this is the most complete, and for accomplishing the greatest amount of good is indispensable.

By it we are enabled to manipulate all the external system; each and every finger is serviceable for concentrating, diagnosing or diffusing the current, from the gentlest touch to the heroic treatment of the congested portion, or of an opposite condition.

And here let us remark, that a good, soft, warm hand, well clothed with flesh, is the only one suitable for electric manipulating. A thin, fleshless hand had better apply the current by means of the reversible electrode. There are many who have taken a great dislike to electrical treatment on account of the nervousness which was engendered when they received it, when the cause was really on account of its having been passed through a nervous, fidgety operator, whose thin, bony fingers were more like tenpenny nails than warm, yielding flesh.

Persons of this kind had far better receive treatment until the state of their system will allow of their administering it.

ABDOMINAL SUPPORTER.

The abdominal supporter is for the purpose indicated by its name, and in conjunction with the supporting uterine electrode described elsewhere has been the only mechanical means used in the cases herein described (aided by electricity) in producing the results indicated.

It is made of heavy Canton flannel about five inches wide, to be worn around the waist of the patient and laced on each hip, being made in two parts, with a band of the same material having a section of silk elastic braid to give ease and comfort to the patient in all positions, and at the same time hold the uterine electrode firmly in place by a simple device, while sustaining the uterus in a normal condition.* As a substitute, a

* See description of uterine electrode.

belt and band is included, with which to sustain the uterus, wherein the same device is used as in the supporter. The whole material is of cloth, dispensing with all metal, horn or other materials to accomplish the object.

They are considered of inestimable value to all who have worn them.

THE COMPENSATOR.

This is a plain, simple device to enable persons to assume an erect and easy position who, either from habit or weakness, have a tendency toward stooping, with a consequent injury to the system. The compensator is made of sheet spring brass, not unlike two corset boards, about two inches wide; one is fitted to the shape of the back when brought to a natural position.

The front one is bent a little at each end to prevent its bearing directly upon the breast-bone. It is then bent from one to three inches, from end to end, to suit the condition of the patient, the convex side being toward the body. These are covered with heavy Canton flannel and sewed to a belt in their proper places. Braces of strong white tape are fastened above and below the belt, bracing it in place. The belt is buckled close to the body, the front round part compensating with the back, relieving the body from any strain, and at the same time affording a gentle pressure on the breast and abdomen, thus restoring the body to a normal position.

This is a valuable instrument for sewing women, or those who have an inclination to stoop.

THE SYRINGE.

We cannot give too much credit to this most inestimable article. Those used should have the power to inject a sufficient quantity and continual current of warm water, which should be lubricated by a sufficiency of Castile soap, adding a tablespoonful of loaf sugar. In cases of constipation it is well to use it freely, injecting from one to four pints; the more thoroughly this is done the easier and more effective the stool, as the parts are more thoroughly lubricated by the action of the soap.

Especially is this necessary in obliquity of the uterus, where trouble is caused by the uterus producing a seeming constipation, thus aggravating the difficulty by violent straining to effect an evacuation.

In many cases we should have found it impossible to effect a cure without the use of enemata of this nature. It is the only cathartic needed in electrical practice, and is perfectly harmless. It should be used freely until the desired result is attained.

We have found Davidson's No. 1 to be as good as any we have used.

THE INHALANT FLASK.

In diseases of the throat and lungs we have found this apparatus of much utility. It should be used with a syrup of loaf sugar, as warm as may be comfortable to the throat and lungs. Its effect is to soothe and lubricate the passages, rendering expectoration comparatively easy, and is a decided luxury to the throat and lungs under any and all circumstances.

CHAPTER XVII.

VIEW OF OPERATING ROOMS.

In the illustration given on page opposite preface we have a view of our operating room, with a patient reclining upon a lounge, under an operating blanket,* receiving Treatment No. 2.

At the left of the operator stands a cabinet case containing the generator, and having apartments for the reception of the various apparatus employed.

In the centre of the table is a lamp used in making examinations of the genital organs, the light being reflected through a tube from a parabolic reflector, concentrating the light upon a sun glass, thus intensifying the light through the speculum (seen to the left of the lamp), and into the uterus when necessary, by means of the uterine dilator (to the right of the lamp), rendering the examination of all the parts very easy, as it is indispensable when the intra-uterine electrode is to be inserted.

Immediately underneath the lamp is a viscera measure for determining the length and size of the supporting uterine electrode, which has always to be made and adjusted to suit each patient.

* The operating blanket is composed of two thicknesses of worsted goods, with a lining of cotton cloth, not quilted, but bound around and tacked at the seams.

It requires four widths of material, three-quarters of a yard wide, thus effectually making two blankets with four sides.

There are three lappets which cover slits in the blanket to admit the hand of the operator; these also facilitate examinations when used in conjunction with another cloth of the same material, which has an orifice fitting close around the speculum, so that exposure of the person is entirely obviated.

We are daily receiving commendation for this simple and convenient device, which is in striking contrast with the usual unpleasant mode of exposure so much dreaded by the patient as to render the thought of a change of physicians almost unbearable.

To the left, and just at the back of the operator, may be seen the necessary appliances for washing, and on the floor, directly underneath, a basket of sponge electrodes, which are indispensable in every operating room.

ELECTRICITY AND DRUG MEDICINES CONTRASTED.

The simple use of electricity, with no other remedy than good, nutritious food and drink, together with quiet rest, has accomplished the results recorded in this book.

This has strengthened our belief that it is not only unnecessary but injurious to tax the stomach with hurtful ingredients that cannot possibly supply healthful nerve force; and we are further impressed with this belief in the almost universal denunciation of medicine by the most intelligent and thinking portion of the community, and this verdict has the indorsement of many physicians, among whom we might mention Sir John Forbes, M. D., F. R. S., in his most excellent work, entitled "Nature and Art in the Cure of Disease." "The British and Foreign Medico Chirurgical Review" in speaking of this work says: "It has contributed not a little toward the reformation of the drugging system. Most sincerely do we thank him as a benefactor of his profession and of mankind." Again, "The Edinburgh Medical Journal" observes: "He recalls to our attention in a truly philosophical form, the sanative powers of nature. * * * All this, Sir John

Forbes does ably and well, and we listen to him with the attention due to a master in Israel."

The "Critic" adds: "We recommend this thoughtful and suggestive book to the careful perusal of all who value health, and especially to those who habitually resort to medicine; they will be less ready to fly to pills and powders when they know the mischief they produce."

The practical experience we have had during the past eight years in assisting nature to throw off disease without the use of a particle of medicine, enables us to indorse the opinions we have quoted, and we take great pleasure in giving our hearty approval of this valuable work, which has been printed from the second London edition, and published by Messrs. Wm. Wood & Co., New York.

In conversation upon this subject with Dr. William Darling, professor of anatomy in the New York University Medical College, he remarked that he had not taken a particle of medicine in over thirty years. Perhaps we could not quote any higher authority as an anatomist, in this or any other country, than Professor Darling.

We desire to acknowledge his kindness to us on many occasions, as well as his valuable suggestions in consultations upon extreme cases. Whenever we have had the pleasure of meeting him he has always evinced the deepest interest in our course of practice, and recommended its continuance.

There are many other practicing physicians in New York who have taken a deep interest in the success

of our theory and practice, and their confidence has been manifested in sending patients for electrical treatment, invariably expressing their great satisfaction in the results produced, fully understanding the inflexibility of our rule, that the use of medicine should not be allowed during our treatment.

We have some of the most flattering testimonials from some of the patients, many of whose cases are recorded in this work.

HYGIENE.

We feel that we cannot do justice to this most important subject in so brief a space as we have allowed ourselves, for the science of hygiene cannot be too highly estimated in the preservation of life and health; and we advise all who wish information upon the subject to secure the best treatise upon it they can find.

We recommend either Draper's or Cutter's, which give all the essential knowledge in popular language, easily understood.

In consonance with the rules of hygiene, we recommend whatever is nutritious and agreeable to the stomach, for no one knows better than the patient what gratifies his taste, and if this agrees with the stomach and digests well, our conclusion, in brief, is that it is good diet.

The cravings of a morbid appetite for spirituous liquors, or any other pernicious or poisonous article, should not of course be yielded to.

It is this that we have recommended to all who have come under our treatment, as our theory is that we must depend upon the stomach to generate electrical forces to carry on the human machinery, and we cannot therefore afford to take in all the chemical compounds of a drug shop, or any part thereof.

ELECTRICAL MACHINES.

The need of some reliable electrical apparatus suitable for healing the sick has been a great hindrance to the progress of electrical therapeutics. Shocks and consequent nervousness have been the ghost which has haunted the memory of those who have come under electrical treatment, and this pervades the minds of many professionals as well as laymen. We hear this every day, and we ourselves suffered sad experience until, necessity being "the mother of invention," we set about remedying the evil, and improving by practical experience, we were enabled to perfect an electro-medical generator, fully answering all the necessary requirements. This has necessitated no small degree of time and expense; one improvement after another was added as experience found it necessary, until in 1870 our labors were crowned with success, and we were enabled to offer an apparatus (for which we received a patent, June 20, 1871,) which completely obviates all the objections heretofore raised against the application of electricity.

There have been a multitude of machines manu-

factured and sold, which proving failures, a new patent has been issued, a new advertisement prepared, and a new lot manufactured with the same lamentable result, when, for some new fancied improvement, the same thing has been re-enacted, until all over the country may be found electrical machines which have been laid aside as useless, to the consequent disappointment and disgust of those who possess them, and to this fact is due the prejudice existing in the mind of the public against the use of apparatus of this nature.

While we do not wish to indulge in any invidious comparisons, yet we wish distinctly to say that we believe the electro-medical generator manufactured under our supervision is *the best in the world*. During the time we were engaged in perfecting it, we were at the pains to obtain the machines of every maker of note both in this country and Europe (visiting England and France for that purpose), and finding that all of them were in one degree or another defective, we pursued our investigations and experiments, until we succeeded in producing a machine that will render a better assistance to nature in healing disease than has ever before been offered to the profession or public.

It was never our intention to enter into the manufacture of these machines, and we should not if our suggestions had been carried out by those in that line to whom we offered them. But having succeeded in our attempts at perfection, we shall continue their manufacture and sale, hoping that in the hands of the disciples of electrical therapeutics they may be the

means of breaking down the prejudice with which worthless machines have imbued the public mind. And now let us say to all who are interested in these things, it is far from our purpose in the remarks we have made either to influence the sale of a generator or a book. If the reader has an instrument which seems to answer the purpose, we say use it, and may the blessing of heaven attend you ; but if on the contrary you find that it does not meet all your requirements, we have only to say that we believe we can furnish an apparatus which will.

T H E

Franklin Electrical Institute,

O R G A N I Z E D 1 8 6 8 .



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(Late Judge Court of Appeals.)

Vice-Presidents :

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Secretary :

REV. JOEL PARKER, D. D., New York.

Director :

JOSEPH PARKER, ESQ., New Haven, Conn.



NOTE.—The above-named gentlemen having received our professional services for themselves and families, their gratitude for what our electrical treatment accomplished has induced them, on our solicitation, to accept the respective offices.

The principal object of this early organization was to secure good, eminent counsel to whom we could look for advice, they sympathizing with us in our investigations.

Under its auspices, a great amount of time and money has been spent in inventing and improving such facilities as experience demanded, involving a trip to Europe in order to avail ourselves of the best means used there, and the mode of practice, as well as to procure works upon electricity, and the nervous and muscular system, which could not be obtained here. To these we are greatly indebted for the success which has blessed our efforts, and enabled us to present to the public a synopsis of the results of our professional experience in electrical therapeutics.

The patronage we have received has been without solicitation or advertising, and no medicine has been allowed to be given any patient while under our care, and it is by this that we are enabled to judge of the effects of electricity as a curative agent, when applied by means of the generator and the various apparatus used in specific cases.

We have in preparation a work on the nervous and muscular system, to be elegantly illustrated by colored lithographic plates, from the elaborate work of Professors Hirschfeld and Leveille, formerly collaborators with Bourguery. These plates were contracted for in Paris, but the Franco-Prussian war has thus far retarded their execution.

The translation of the explanations of the plates has been completed by Professor William Darling, of

the New York University Medical College. The nervous, muscular and circulatory systems have been tabularized according to Gray, in a very condensed and concise form.

The plates are master-pieces of artistic excellence, every prominent nerve and muscle being shown with an exactness truly remarkable.

The present work contains a brief synopsis of some portions of the forthcoming volume.

In conclusion, we would say that it has been our highest aim during the past eight years to devise means and discover principles upon which the physical system could find assistance in the hour of suffering, and in this we feel that we have been directed by a higher power. All that we have been enabled to accomplish through nature's agent (electricity) we most reverently ascribe to "Him who doeth all things well," feeling that it was His will that, through chastisement in afflicting us with, and emancipating us from, a nervous paralytic condition, we should be called upon to pass through eight years of mental and physical labor in order to accomplish what we have. And we feel confident that the work thus begun will be carried forward, lighting up the gloom of many a sick chamber, and bringing comfort to saddened hearts.

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